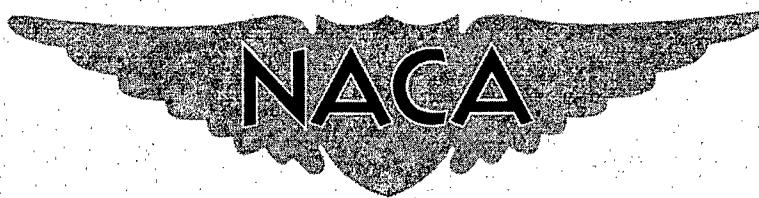


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RESEARCH MEMORANDUM

PRESSURE DISTRIBUTIONS ON FOUR CANOPY-FUSELAGE

CONFIGURATIONS AT TRANSONIC SPEEDS

By Elden S. Cornette

Langley Aeronautical Laboratory

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NATIONAL ADVISORY COMMITTEE
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RESEARCH MEMORANDUM

PRESSURE DISTRIBUTIONS ON FOUR CANOPY-FUSELAGE

CONFIGURATIONS AT TRANSONIC SPEEDS

By Elden S. Cornette

SUMMARY

Pressure-distribution data have been obtained for a drooped-nose-fuselage forebody alone and for four canopy shapes mounted on this forebody. Two of the canopies had the same shape and size rearward of the windshield but one had a "flat" and the other a "vee" windshield. The remaining two canopies were located at different body stations, had smaller maximum cross-sectional areas, higher fineness ratios, and flat windshields. The models were tested at Mach numbers from 0.80 to 1.13 and at combined angles of attack and sideslip. The Reynolds number per foot varied from 3.54×10^6 to 3.87×10^6 .

The data indicated that a flat-windshield canopy experienced lower pressures over a greater percentage of its projected frontal area than a comparable vee-windshield canopy. Localized regions of low pressure, however, were more severe for the vee-windshield canopy. Windshield shape had little effect on pressures measured over the rear one-third of the canopies. Integrated canopy pressure drag increments, which included only the interference of the fuselage on the canopy, were essentially the same for the small forward- and rearward-located canopies at the higher Mach numbers. However, comparison of the increments in canopy-plus-fuselage force data indicated that the interference of the canopy on the fuselage was principally responsible for higher drag due to the canopy in the rearward location.

INTRODUCTION

Among the problems associated with the design of piloted aircraft for flight in the transonic and supersonic speed ranges is that of determining the optimum shape and location of a cockpit canopy. Visibility requirements for take-off, landing, and combat purposes must be met with a minimum penalty in performance of the overall configuration. Sound structural design requires a knowledge of the magnitude and distribution of the aerodynamic

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loads which would be expected to act upon the canopy during flight. A few papers presently available showing experimental pressure-distribution and drag results obtained in the transonic and supersonic speed ranges are listed in references 1 to 9.

In order to obtain additional aerodynamic data in the transonic and supersonic speed ranges, a series of airplane canopy models that simulate present designs used on high-speed aircraft were investigated at the Langley Laboratory. The objective of this program was to obtain force and pressure-distribution data for canopy-fuselage combinations and to evaluate the effects of changes in canopy shape, size, and location under various operating conditions of pitch, sideslip, and Mach number. Reported in reference 1 are the results of part of this program conducted in the Langley 4- by 4-foot supersonic pressure tunnel at Mach numbers of 1.41 and 2.01. Force and pressure measurements are presented for eight canopies mounted on a common drooped-nose-fuselage forebody. Reference 2 presents the results of force measurements on four of these canopies obtained in the Langley 8-foot transonic tunnel for a Mach number range from 0.80 to 1.13.

Reported herein are the pressure-distribution results obtained at transonic speeds for the fuselage forebody with and without the four canopy shapes tested in reference 2. The data presented supplement that of references 1 and 2. Two of the canopies were mounted well forward on the fuselage and had the same shape and size rearward of the windshield but one had a flat and the other a vee windshield. The two remaining canopies had smaller cross-sectional areas and higher fineness ratios than the first two and both had flat windshields. The two smaller canopies were located at different longitudinal positions on the fuselage.

The tests reported herein covered a Mach number range from 0.80 to 1.13, and angle-of-attack range from 0° to 10° , and an angle-of-sideslip range from -8° to 8° . The Reynolds number per foot varied from 3.54×10^6 to 3.87×10^6 .

SYMBOLS

- A_b maximum cross-sectional area of fuselage forebody, 15.71 sq in.
 A_{max} maximum cross-sectional area of exposed canopy
 a major radius of fuselage cross-section ellipse
 b minor radius of fuselage cross-section ellipse, $a/1.25$

C_D	drag coefficient, Drag/qA_b
$\Delta C_{D,A}$	incremental drag coefficient due to canopy, $(C_D - C_{D\text{fuselage}}) \frac{A_b}{A_{\max}}$
$\Delta C_{D,p}$	incremental pressure drag coefficient due to canopy obtained from pressure distributions (based on exposed canopy maximum cross-sectional area)
C_p	local pressure coefficient, $\frac{p - p_0}{q}$
$C_{p,b}$	base-pressure coefficient, $\frac{p_b - p_0}{q}$
c	major radius of canopy cross-section ellipse, measured from drooped center line of fuselage
d	minor radius of canopy cross-section ellipse, $c/2.5$
h	distance to top of round canopy, measured from straight center line of fuselage
l	total canopy length
l_b	total fuselage length, 25 inches
M	free-stream Mach number
P.L.	designation of canopy-fuselage parting line
p	local static pressure
p_b	static pressure at model base
p_0	free-stream static pressure
q	free-stream dynamic pressure
R	Reynolds number per foot of length, $\rho V / \mu$
r	radius of cross section of round canopy
u	vertical coordinate of canopy cross section

- v horizontal coordinate of canopy cross section
V free-stream velocity
x distance measured from canopy nose along straight center line
(positive rearward)
 x_b distance measured from fuselage nose along straight center line
(positive rearward)
z vertical distance from straight center line to drooped center
line of fuselage (positive downward)
 α angle of attack, deg
 β angle of sideslip, deg
 μ free-stream viscosity
 ρ free-stream density
 φ lateral angle (positive when measured clockwise from plane of
symmetry looking downstream)

APPARATUS AND INSTRUMENTATION

Tunnel

This investigation was conducted in the Langley 8-foot transonic tunnel, which has a dodecagonal slotted test section. This tunnel is capable of continuously variable operation through the speed range up to a Mach number of 1.15. The models were mounted in the tunnel on the conventional sting-support system. Detailed discussions of the design and calibration of this tunnel have been presented in references 10 and 11. The uniformity of the Mach number distribution in the model region is within ± 0.006 .

Models

A drooped-nose-fuselage forebody and four canopy shapes mounted on this forebody were tested in this investigation. The dimensions of the models are presented in figure 1. These models were the same as those used and described in references 1 and 2. The fuselage forebody (fig. 1(a)) had elliptic cross sections throughout. The cross sections of canopies 1 and 2 (figs. 1(b) and 1(c)) behind the windshield were also

elliptic but canopy 1 had a flat windshield, whereas canopy 2 had a vee windshield. Both windshields were swept back 55° and the vee windshield had an opening angle of approximately 50° . Both canopies 1 and 2 were located well forward on the fuselage and had equivalent fineness ratios of approximately 7.0 (based on the ratio of the diameter of an equivalent body of revolution to the length of the canopy in the plane of symmetry). The ratio of the maximum cross-sectional area of canopies 1 and 2 to the maximum cross-sectional area of the fuselage was approximately 0.165. The method of derivation of the windshield shapes is illustrated in reference 1.

Canopies 3 and 4 (figs. 1(d) and 1(e)) had circular cross sections behind the windshield, lower windshield slopes, and were smaller in size. Both canopies had flat windshields swept back 65° but canopy 4 was located 3.75 inches farther downstream on the fuselage than canopy 3. The equivalent fineness ratio of canopy 3 was approximately 10.0, whereas that of canopy 4 was approximately 12.0. The ratio of the maximum cross-sectional area of the canopy to the maximum cross-sectional area of the fuselage was approximately 0.095 and 0.066 for canopies 3 and 4, respectively. Slight dissymmetry in construction of canopy 3 is indicated in figure 1(d) where the actual measured dimensions are presented.

Instrumentation

The location of pressure orifices on the five models used in this investigation is shown in figure 2. The fuselage alone was instrumented with two longitudinal rows of 21 orifices each, whereas each canopy had approximately 50 orifices. In all cases orifices were installed on only one side of the plane of symmetry so that both positive and negative sideslip angles were tested in order to determine the pressures on both the upstream and downstream sides of the model for a given sideslip angle. In general, the orifices were positioned so that pressure distributions could be obtained in two directions; laterally, for various model stations and longitudinally, in meridian planes. For each canopy, additional orifices were located near sharp breaks in the contour and along the parting line between canopy and fuselage. These orifices generally did not fall into the lateral and longitudinal pattern.

TESTS AND MEASUREMENTS

Tests

The five models were tested at stream Mach numbers of 0.80, 0.90, 0.95, 0.99, 1.02, 1.08, and 1.13. The maximum random error in measuring

stream Mach number is believed to be about 0.003. At each Mach number, the models were tested under conditions of combined pitch and sideslip which included angles of attack of approximately 0° , 5° , and 10° and angles of sideslip of approximately 0° , $\pm 4^\circ$, and $\pm 8^\circ$. The Reynolds number per foot varied from 3.54×10^6 to 3.87×10^6 . (See fig. 3.)

Measurements

At each test point, canopy pressure distribution, model base pressure, and all pressure data relative to prevailing ambient test conditions were photographically recorded from multiple-tube manometers. The accuracy of measurement of the pressure coefficients reported herein is estimated to be within ± 0.005 . The matching of pressure distributions on the upstream and downstream sides of a canopy at a given angle of sideslip, however, is also subject to accumulative errors due to the accuracy of measurement and repeatability of Mach number, angle of attack, and angle of sideslip.

Figure 4 shows the variation of base-pressure coefficient with Mach number at approximately zero angle of attack and sideslip for the five models tested. A block of wood having the same cross-sectional shape as the model base and 1 foot long was fastened rigidly to the sting behind the model in order to reduce the flow expansion about the model base. The gap between the block of wood and the model was approximately $1/16$ inch.

In order to facilitate sideslip-angle measurements, the model was rotated 90° before it was mounted on the sting-support system. The side-slip angle was then measured by an electrical strain-gage pendulum device mounted internally near the base of the support sting. Sting and model deflections occurring ahead of this point as a result of forces and moments acting on the model were determined from static tests. The corrections were applied to the indicated sideslip angle.

The angle of attack was obtained by inserting 0° -, 5° -, and 10° -bent couplings in the support sting. Corrections were applied for incremental change in angle of attack due to load. The maximum deflection due to load was approximately 0.3° . The angles of sideslip and attack reported herein are accurate within $\pm 0.1^\circ$.

RESULTS AND DISCUSSION

The pressure-coefficient data for the five models tested are presented in tables I to V. These tables are arranged so that plots of pressure coefficient may be made longitudinally in meridian planes or laterally at a particular station. Since orifices were installed on only one side of the plane of symmetry of the models, both positive and negative sideslip angles

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were tested in order to determine the pressures on both the upstream and downstream sides of the model for a given sideslip angle. Therefore, complete lateral plots can only be made for those conditions where the corresponding positive and negative sideslip angles are the same. Presented in figures 5 to 9 are representative plots of pressure coefficients against axial location along longitudinal meridians for all configurations.

Effect of Windshield Shape

Shown in figure 5 is a comparison of the pressure-coefficient distributions on the flat- and vee-windshield canopies 1 and 2 for representative conditions of pitch, sideslip, and Mach number. It can be seen that the pressure coefficients over the forward portion of the canopy were generally more positive for the vee than for the flat windshield. Moving downstream along a meridian line on the vee-windshield canopy, it can be seen that the pressure decreased gradually over the windshield and then showed a very rapid decrease to a very high, sharp suction pressure peak as the flow expanded about the downstream edges of the windshield which were located near the maximum cross-sectional area station. The pressure recovered very rapidly from the high suction peaks, however, and approached the free-stream value over the rear of the canopy. In the case of the flat windshield, the edges were located farther upstream. As a consequence, the flow expansion about the edges resulted in low pressures over a greater length of each meridian. The suction pressure peaks, which occurred at or near the maximum cross-sectional area station for both canopies, were generally much lower and less severe for the flat-windshield canopy. The pressure recovery downstream of the maximum-cross-sectional area station was gradual and the free-stream value was approached as in the case of the vee-windshield canopy. Windshield shape generally had little or no effect on the pressures over the rear one-third of the canopies.

The effect of the earlier flow expansion on the flat windshield is also shown in figures 10(a) and 10(b) where constant-pressure-coefficient contours are plotted on one-half the frontal projections of the flat- and vee-windshield canopies for Mach numbers of 0.80, 0.99, and 1.13. The flat windshield covered approximately one-third of the projected frontal area of the canopy, whereas the vee windshield covered approximately three-fourths. In a small region near the nose of the canopies, the pressure coefficients were more positive for the flat windshield but, over the much larger portion of frontal area, the vee windshield supported more positive pressure coefficients. The early flow expansion and resulting lower pressures over the frontal projection of the flat-windshield canopy indicate that it should have the drag advantage in this case. This is substantiated by force-data results obtained for these models and presented in references 1 and 2. Shown in figure 11 is a comparison of the drag of the models used in this investigation. This figure was taken from reference 2 and shows that the flat-windshield canopy 1 had consistently less drag than the

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vee-windshield canopy 2 throughout the Mach number range. Comparison of somewhat different flat- and vee-windshield canopies in reference 4 showed greater drag for the flat windshields. In that case, however, the flat windshields contributed nearly all of the total canopy frontal area so that expansions around the windshield edges could not produce reductions in drag.

Effect of Canopy Location

Shown in figure 6 are the distributions of pressure coefficients along meridian lines for the forward-located and rearward-located small flat-windshield canopies 3 and 4. These curves show the general shape of the pressure variations in the axial direction for the two canopies at representative conditions of pitch, sideslip, and Mach number. It is obvious that the pressures acting on the frontal portion of the forward-located canopy 3 were considerably greater than those acting at corresponding points on the rearward canopy 4. (See also figs. 10(c) and 10(d).) However, because of differences in size and fineness ratio between the two canopies, these curves do not provide for an adequate evaluation of the effects of canopy location on the drag of the canopy-fuselage combinations.

In order to provide a better comparison of the drag of the two canopy positions, the pressure distributions over the front and rear exposed surfaces of the two canopies were integrated to determine an axial-force contribution. The pressure distributions obtained on the fuselage alone were then integrated over the area which would be covered by the canopies. This result was subtracted from the result of the canopy-exposed-surface integrations to produce an axial-force increment due to the canopy. The maximum cross-sectional areas of the canopies themselves (1.49 square inches for forward-located canopy 3 and 1.03 square inches for rearward-located canopy 4) were then used to convert the incremental forces to incremental drag coefficients due to the canopies. These results are plotted in figure 12 for Mach numbers of 0.80, 0.99, and 1.13. Also plotted in figure 12 are the incremental drag coefficients (based on canopy maximum cross-sectional area) taken from the force-data results of reference 2. The force-data results, which include all mutual interference effects between canopy and fuselage, indicate that the rearward canopy location produced the higher drag increment. The results of the pressure integrations, which include only the interference of the fuselage on the canopy, indicate that the pressure drag increments were essentially the same for the two positions except at a Mach number of 0.80 where the rearward-located canopy produced a somewhat lower pressure drag. It therefore appears that the interference of the canopy on the fuselage played a relatively large part in determining the total drag of the combination. By comparing the drag-coefficient increments obtained from force data with those obtained from pressure integrations for one particular canopy, it can be seen that, in the case of the forward-located canopy 3, the interference of the canopy on the fuselage was favorable at

all Mach numbers (ΔC_D was reduced), whereas, in the case of the rearward-located canopy 4, the interference of the canopy on the fuselage was apparently unfavorable at all Mach numbers (ΔC_D was increased). Although the present results were for canopies on a fuselage forebody, the results are consistent with the findings of reference 3 which shows that canopy-fuselage interference drag increases as the canopy is moved rearward to the maximum cross-sectional area station of a complete fuselage.

Effect of Mach Number

The effects of Mach number on the pressure coefficients of the canopies and fuselage are illustrated in figure 7. Increasing free-stream Mach number at transonic speeds produced small but consistent increases in pressure coefficient over the forward face of all the canopies tested. For the flat-windshield canopies (figs. 7(a), 7(c), and 7(d)), the suction pressure peaks rose and moved rearward slightly with increase in Mach number to about 0.90 or 0.95. As the Mach number was increased further to 1.13, the suction peaks remained in the vicinity of the maximum cross-sectional area station but their height was reduced consistently. For the vee-windshield canopy (fig. 7(b)), the sharp suction pressure peaks occurring over the upper portion of the canopy were highest at a Mach number of 0.80 and were lowered consistently with increase in Mach number to 1.13. For all canopies, the pressure recovery downstream of the maximum cross-sectional area station tended to become more gradual at the higher Mach numbers. Changes in Mach number had little effect on the level of pressures over the rear one-third of the canopies. Shown in figure 7(e) are the effects of Mach number on the pressure distribution over the fuselage alone.

Effect of Sideslip

The changes in longitudinal pressure-coefficient distributions due to sideslip are illustrated in figure 8. In these figures, negative sideslip angles indicate data that were measured on the windward side of the canopy, whereas positive sideslip angles indicate that measured on the leeward side. The effect of sideslip on the pressures on the windward side of all canopies was to increase the pressure over the forward portion and to reduce the pressure over the rearward portion. On the leeward side, rather large pressure reductions due to sideslip occurred over the forward portion of all canopies, whereas the pressures over the rear portion either remained the same or were slightly reduced because of the crossflow velocity increments. As to be expected at large sideslip on the leeward side, the vee-windshield canopy (fig. 8(b)) exhibited a localized region of low pressure just downstream of the sharp nose ($\phi = 3^\circ$). On the leeward side, the flat-windshield canopies (figs. 8(a), 8(c), and 8(d)) showed rapid

expansion of the flow about the windshield edges with subsequent recompression immediately downstream. Shown in figure 8(e) are the effects of sideslip on the pressure distribution over the fuselage alone.

Effect of Angle of Attack

The effects of angle of attack on the longitudinal pressure distributions for the five models are illustrated in figure 9. At approximately zero sideslip, the effect of increasing angle of attack was to produce small reductions in pressure over the windshields and slightly higher suction pressure peaks over the upper portion of all canopies tested.

Under conditions of sideslip, the effect of increasing angle of attack on the pressures over the forward portion of the canopies was to reduce pressures on the windward side and to increase pressures on the leeward side particularly near the canopy-fuselage parting line. Pressures over the rear of the canopies either remained the same or were slightly reduced.

CONCLUSIONS

Pressure-distribution data have been obtained for a fuselage forebody alone and for four canopy shapes mounted on this forebody. The canopies, which varied in windshield shape, size, and location on the fuselage, were tested at Mach numbers from 0.80 to 1.13 and at combined angles of attack and sideslip. The Reynolds number per foot varied from 3.54×10^6 to 3.87×10^6 . The data obtained indicated that:

1. The large forward-located flat-windshield canopy model used in this investigation experienced lower pressures over a greater percentage of its projected frontal area than the vee-windshield canopy.
2. The localized regions of low pressure produced by flow expansion about windshield edges were considerably more severe for the vee-windshield canopy. Lowest pressures occurred on the vee-windshield canopy at a Mach number of 0.80 and on the flat-windshield canopies at Mach numbers of 0.90 and 0.95.
3. Windshield shape had little effect on pressures measured over the rear one-third of the canopies.
4. Integrated canopy pressure drag increments, which included only the interference of the fuselage on the canopy, were essentially the same for the small forward- and rearward-located canopies at the higher Mach

numbers. However, comparison of the canopy-plus-fuselage force data indicated that the interference of the canopy on the fuselage was principally responsible for the higher drag due to the canopy in the rearward location.

Langley Aeronautical Laboratory,
National Advisory Committee for Aeronautics,
Langley Field, Va., July 31, 1956.

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TABLE I

PRESSURE COEFFICIENTS FOR FUSELAGE ALONE

(a) $M = 0.80$

ϕ , deg	Pressure coefficients for x_b/l_b of -																				
	0.160	0.200	0.240	0.280	0.320	0.360	0.400	0.440	0.480	0.520	0.560	0.600	0.640	0.680	0.720	0.760	0.800	0.840	0.880	0.920	0.960
$\alpha = -0.1^\circ; \beta = 0^\circ$																					
30.0	0.129	0.098	0.055	0.026	-0.030	-0.015	-0.060	-0.060	-0.064	-0.088	-0.081	-0.094	-0.079	-0.068	-0.036	-0.028	-0.017	-0.016	-0.018	-0.031	-0.059
00.0	.132	.106	.066	.040	.004	-.029	-.063	-.060	-.077	-.096	-.102	-.110	-.109	-.076	-.026	-.023	-.017	-.012	-.018	-.011	-.032
$\alpha = -0.1^\circ; \beta = -4.2^\circ$																					
30.0	0.147	0.125	0.086	0.054	-0.002	0.017	-0.038	-0.045	-0.062	-0.089	-0.090	-0.099	-0.073	-0.066	-0.040	-0.033	-0.023	-0.025	-0.024	-0.037	-0.045
00.0	.117	.090	.049	.028	-.014	-.045	-.081	-.078	-.089	-.096	-.110	-.119	-.132	-.100	-.052	-.045	-.038	-.032	-.035	-.030	-.049
-30.0	.085	.052	.006	-.015	-.038	-.040	-.083	-.071	-.088	-.116	-.105	-.111	-.093	-.079	-.046	-.036	-.025	-.024	-.024	-.035	-.043
$\alpha = -0.1^\circ; \beta = -8.4^\circ$																					
30.0	0.130	0.122	0.093	0.061	0.009	0.027	-0.032	-0.039	-0.060	-0.091	-0.093	-0.102	-0.084	-0.085	-0.061	-0.055	-0.046	-0.049	-0.048	-0.062	-0.065
00.0	.066	.037	-.000	-.020	-.050	-.075	-.124	-.113	-.138	-.141	-.167	-.173	-.189	-.155	-.107	-.098	-.090	-.083	-.084	-.076	-.092
-30.0	-.011	-.038	-.083	-.070	-.117	-.113	-.147	-.132	-.146	-.167	-.152	-.148	-.125	-.105	-.071	-.058	-.047	-.044	-.044	-.052	-.062
$\alpha = 5.1^\circ; \beta = 0^\circ$																					
30.0	0.061	0.044	0.008	-0.015	-0.027	-0.031	-0.077	-0.066	-0.081	-0.109	-0.103	-0.111	-0.090	-0.074	-0.047	-0.037	-0.028	-0.027	-0.026	-0.036	-0.045
00.0	.058	.043	.007	-.018	-.046	-.072	-.097	-.089	-.082	-.088	-.108	-.111	-.107	-.074	-.031	-.021	-.017	-.011	-.016	-.012	-.031
$\alpha = 5.1^\circ; \beta = -4.2^\circ$																					
30.0	0.065	0.056	0.024	0.009	-0.026	-0.016	-0.078	-0.071	-0.087	-0.122	-0.117	-0.133	-0.117	-0.105	-0.079	-0.069	-0.062	-0.061	-0.060	-0.069	-0.074
00.0	.040	.025	-.011	-.010	-.047	-.075	-.115	-.099	-.118	-.121	-.137	-.136	-.133	-.099	-.057	-.044	-.038	-.032	-.034	-.032	-.048
-30.0	.027	.008	-.022	-.024	-.058	-.052	-.095	-.083	-.094	-.117	-.105	-.106	-.084	-.064	-.036	-.025	-.017	-.017	-.018	-.024	-.036
$\alpha = 5.1^\circ; \beta = -8.4^\circ$																					
30.0	0.044	0.041	0.012	-0.001	-0.035	-0.027	-0.095	-0.088	-0.104	-0.143	-0.142	-0.165	-0.150	-0.143	-0.121	-0.114	-0.106	-0.105	-0.100	-0.112	-0.112
00.0	-.002	-.027	-.060	-.060	-.103	-.125	-.168	-.151	-.170	-.169	-.188	-.184	-.183	-.146	-.102	-.086	-.075	-.063	-.063	-.056	-.067
-30.0	-.047	-.046	-.083	-.078	-.107	-.109	-.135	-.119	-.126	-.139	-.124	-.118	-.094	-.071	-.046	-.037	-.032	-.034	-.036	-.047	-.060
$\alpha = 10.2^\circ; \beta = 0^\circ$																					
30.0	-.001	-.009	-.031	-.044	-.074	-.068	-.116	-.107	-.112	-.139	-.129	-.132	-.109	-.092	-.062	-.051	-.042	-.044	-.044	-.046	-.057
00.0	-.003	-.011	-.040	-.043	-.065	-.091	-.129	-.100	-.111	-.112	-.120	-.110	-.102	-.065	-.028	-.019	-.017	-.015	-.014	-.011	-.025
$\alpha = 10.2^\circ; \beta = -4.2^\circ$																					
30.0	-.007	-.011	-.038	-.064	-.090	-.085	-.140	-.133	-.140	-.177	-.166	-.178	-.153	-.139	-.112	-.099	-.089	-.089	-.082	-.085	-.089
00.0	-.016	-.027	-.058	-.062	-.088	-.112	-.150	-.123	-.133	-.142	-.129	-.119	-.082	-.048	-.040	-.039	-.037	-.039	-.038	-.054	
-30.0	-.020	-.014	-.040	-.052	-.075	-.074	-.111	-.098	-.105	-.123	-.107	-.108	-.083	-.065	-.036	-.026	-.018	-.021	-.021	-.027	-.038
$\alpha = 10.2^\circ; \beta = -8.4^\circ$																					
30.0	-.043	-.035	-.067	-.092	-.118	-.115	-.178	-.169	-.176	-.218	-.209	-.229	-.206	-.193	-.170	-.158	-.151	-.147	-.136	-.139	-.138
00.0	-.052	-.071	-.101	-.102	-.134	-.153	-.192	-.165	-.173	-.167	-.175	-.158	-.144	-.103	-.071	-.062	-.060	-.057	-.055	-.050	-.060
-30.0	-.074	-.068	-.094	-.098	-.112	-.116	-.132	-.120	-.123	-.132	-.117	-.114	-.086	-.043	-.030	-.019	-.020	-.012	-.026	-.029	

TABLE I.- Continued

PRESSURE COEFFICIENTS FOR FUSELAGE ALONE

(b) M = 0.90

ϕ , deg	Pressure coefficients for x_b/l_b of -																				
	0.160	0.200	0.240	0.280	0.320	0.360	0.400	0.440	0.480	0.520	0.560	0.600	0.640	0.680	0.720	0.760	0.800	0.840	0.880	0.920	0.960
$\alpha = -0.1^\circ; \beta = 0^\circ$																					
30.0 00.0	0.138 .146	0.108 .120	0.060 .074	0.024 .044	-0.032 .004	-0.017 .032	-0.070 .072	-0.072 .068	-0.090 .087	-0.115 .117	-0.104 .122	-0.120 .145	-0.099 .137	-0.079 .087	-0.041 .021	-0.030 .021	-0.019 .018	-0.020 .015	-0.022 .023	-0.034 .016	-0.044 .040
$\alpha = -0.1^\circ; \beta = -4.2^\circ$																					
30.0 00.0 -30.0	0.161 .135 .085	0.137 .109 .055	0.095 .064 .004	0.057 .035 .022	-0.004 .010 .047	0.016 .045 .046	-0.046 .082 .101	-0.053 .096 .087	-0.077 .114 .114	-0.106 .126 .122	-0.109 .144 .148	-0.130 .152 .142	-0.112 .106 .116	-0.077 .092 .092	-0.042 .052 .041	-0.034 .036 .029	-0.024 .032 .031	-0.026 .037 .041	-0.028 .032 .053	-0.040 .032 .055	-0.049 .049 .055
$\alpha = -0.1^\circ; \beta = -8.5^\circ$																					
30.0 00.0 -30.0	0.147 .084 .003	0.136 .055 .031	0.102 .014 .079	0.068 .013 .075	0.010 .049 .129	0.029 .073 .122	-0.038 .133 .168	-0.046 .122 .152	-0.069 .147 .176	-0.105 .155 .201	-0.112 .182 .185	-0.132 .196 .178	-0.111 .214 .147	-0.096 .165 .117	-0.068 .110 .077	-0.060 .097 .054	-0.051 .090 .052	-0.053 .085 .055	-0.050 .087 .063	-0.065 .079 .076	-0.069 .099 .091
$\alpha = 5.1^\circ; \beta = 0^\circ$																					
30.0 00.0	0.073 .072	0.055 .057	0.016 .015	-0.013 .015	-0.033 .045	-0.032 .078	-0.088 .108	-0.077 .098	-0.096 .095	-0.131 .109	-0.121 .128	-0.134 .137	-0.108 .127	-0.084 .083	-0.050 .034	-0.038 .022	-0.030 .020	-0.029 .016	-0.030 .020	-0.040 .019	-0.052 .041
$\alpha = 5.1^\circ; \beta = -4.2^\circ$																					
30.0 00.0 -30.0	0.079 .060 .033	0.073 .043 .019	0.036 .003 .013	0.013 .004 .025	-0.027 .042 .065	-0.015 .072 .056	-0.085 .119 .110	-0.079 .104 .099	-0.096 .121 .114	-0.136 .132 .140	-0.131 .153 .127	-0.153 .132 .130	-0.132 .111 .099	-0.111 .079 .073	-0.079 .068 .059	-0.068 .055 .059	-0.060 .040 .027	-0.059 .035 .019	-0.058 .035 .022	-0.068 .033 .031	-0.068 .054 .044
$\alpha = 5.1^\circ; \beta = -8.5^\circ$																					
30.0 00.0 -30.0	0.061 .013 .040	0.055 .014 .036	0.020 .051 .080	0.002 .057 .080	-0.036 .057 .084	-0.025 .105 .120	-0.107 .132 .117	-0.100 .183 .154	-0.115 .166 .139	-0.164 .186 .152	-0.161 .211 .152	-0.192 .212 .151	-0.174 .206 .111	-0.159 .157 .082	-0.132 .106 .054	-0.121 .088 .043	-0.114 .078 .043	-0.111 .068 .048	-0.107 .067 .052	-0.119 .060 .078	-0.124 .075 .078
$\alpha = 10.2^\circ; \beta = 0^\circ$																					
30.0 00.0	0.009 .009	0.001 .000	-0.024 .033	-0.042 .040	-0.079 .063	-0.068 .096	-0.124 .141	-0.116 .111	-0.123 .124	-0.152 .134	-0.140 .142	-0.146 .142	-0.116 .149	-0.090 .130	-0.058 .072	-0.046 .031	-0.039 .019	-0.039 .021	-0.038 .018	-0.045 .017	-0.061 .015
$\alpha = 10.2^\circ; \beta = -4.2^\circ$																					
30.0 00.0 -30.0	0.016 .009	0.008 .002	-0.025 .039	-0.052 .051	-0.088 .077	-0.078 .105	-0.145 .151	-0.134 .122	-0.142 .134	-0.179 .142	-0.179 .149	-0.168 .141	-0.184 .124	-0.154 .080	-0.127 .044	-0.097 .032	-0.084 .034	-0.077 .036	-0.073 .039	-0.067 .058	-0.084 .056
$\alpha = 10.2^\circ; \beta = -8.5^\circ$																					
30.0 00.0 -30.0	-0.017 .027	-0.015 .043	-0.053 .080	-0.081 .090	-0.117 .123	-0.110 .146	-0.181 .193	-0.173 .166	-0.179 .176	-0.223 .176	-0.213 .186	-0.241 .172	-0.212 .149	-0.186 .104	-0.160 .070	-0.148 .058	-0.140 .057	-0.134 .055	-0.121 .052	-0.129 .067	-0.132 .067

TABLE I.- Continued

PRESSURE COEFFICIENTS FOR FUSELAGE ALONE

(c) $M = 0.95$

ϕ , deg	Pressure coefficients for x_b/l_b of -																					
	0.160	0.200	0.240	0.280	0.320	0.360	0.400	0.440	0.480	0.520	0.560	0.600	0.640	0.680	0.720	0.760	0.800	0.840	0.880	0.920	0.960	
$\alpha = -0.1^\circ; \beta = 0^\circ$																						
30.0 0.00	0.159 .159	0.131 .132	0.080 .083	0.040 .049	-0.026 .006	-0.007 .032	-0.074 .083	-0.074 .075	-0.107 .100	-0.133 .139	-0.133 .147	-0.153 .173	-0.157 .202	-0.111 .130	-0.027 .000	-0.026 .017	-0.017 .019	-0.021 .017	-0.025 .026	-0.036 .021	-0.046 .045	
$\alpha = -0.1^\circ; \beta = -4.3^\circ$																						
30.0 0.00 -30.0	0.173 .142 .107	0.150 .113 .075	0.105 .067 .021	0.065 .033 .013	-0.001 .015	0.020 .051	-0.052 .105	-0.061 .100	-0.085 .118	-0.122 .153	-0.138 .175	-0.165 .184	-0.176 .226	-0.146 .148	-0.026 .045	-0.035 .045	-0.027 .046	-0.033 .040	-0.035 .048	-0.049 .042	-0.052 .067	
$\alpha = -0.1^\circ; \beta = -8.5^\circ$																						
30.0 0.00 -30.0	0.162 .097 .021	0.149 .066 .007	0.113 .022 .058	0.074 .008 .058	0.010 .053 .063	0.032 .075 .121	-0.043 .150 .121	-0.058 .144 .121	-0.077 .157 .177	-0.120 .179 .140	-0.140 .218 .187	-0.180 .250 .199	-0.155 .212 .211	-0.070 .104 .066	-0.061 .099 .058	-0.053 .098 .049	-0.059 .092 .050	-0.059 .098 .053	-0.071 .088 .064	-0.072 .112 .087		
$\alpha = 5.1^\circ; \beta = 0^\circ$																						
30.0 0.00	0.087 .084	0.069 .068	0.024 .022	-0.009 .012	-0.032 .043	-0.030 .078	-0.100 .121	-0.086 .105	-0.107 .107	-0.150 .131	-0.148 .149	-0.176 .183	-0.161 .184	-0.097 .086	-0.050 .031	-0.038 .019	-0.032 .021	-0.035 .020	-0.037 .026	-0.048 .025	-0.066	
$\alpha = 5.1^\circ; \beta = -4.3^\circ$																						
30.0 0.00 -30.0	0.094 .071 .053	0.087 .053 .035	0.047 .010 .001	0.023 .002 .018	-0.025 .059 .061	-0.009 .075 .051	-0.095 .136 .119	-0.090 .115 .100	-0.107 .133 .133	-0.154 .161 .160	-0.163 .178 .148	-0.195 .200 .176	-0.182 .208 .141	-0.140 .109 .078	-0.078 .054 .025	-0.067 .040 .020	-0.063 .038 .023	-0.065 .055 .027	-0.065 .041 .036	-0.074 .069 .056	-0.088	
$\alpha = 5.1^\circ; \beta = -8.5^\circ$																						
30.0 0.00 -30.0	0.076 .029 .023	0.071 .001 .020	0.032 .043 .069	0.008 .052 .078	-0.036 .102 .119	-0.023 .134 .115	-0.114 .199 .115	-0.117 .183 .170	-0.127 .194 .171	-0.178 .219 .201	-0.198 .248 .175	-0.237 .259 .186	-0.219 .267 .141	-0.217 .171 .084	-0.127 .101 .052	-0.118 .086 .043	-0.116 .080 .041	-0.120 .071 .034	-0.115 .071 .071	-0.124 .069 .093	-0.132	
$\alpha = 10.2^\circ; \beta = 0^\circ$																						
30.0 0.00	0.024 .022	0.013 .013	-0.017 .023	-0.039 .034	-0.081 .058	-0.065 .098	-0.137 .155	-0.129 .119	-0.137 .135	-0.170 .153	-0.179 .169	-0.205 .184	-0.156 .147	-0.103 .072	-0.058 .027	-0.047 .016	-0.043 .020	-0.048 .021	-0.049 .022	-0.056 .043	-0.080	
$\alpha = 10.2^\circ; \beta = -4.3^\circ$																						
30.0 0.00 -30.0	0.029 .020 .004	0.021 .006 .016	-0.017 .038 .029	-0.054 .051 .053	-0.095 .080 .089	-0.080 .119 .075	-0.161 .176 .135	-0.160 .141 .119	-0.165 .154 .144	-0.206 .174 .144	-0.222 .194 .144	-0.254 .202 .182	-0.212 .163 .159	-0.168 .089 .164	-0.103 .049 .074	-0.092 .040 .025	-0.089 .038 .021	-0.091 .051 .027	-0.085 .055 .039	-0.089 .079 .058	-0.107	
$\alpha = 10.2^\circ; \beta = -8.5^\circ$																						
30.0 0.00 -30.0	-0.014 .027 .037	-0.007 .042 .031	-0.050 .088 .072	-0.090 .096 .088	-0.129 .135 .118	-0.121 .169 .109	-0.204 .233 .159	-0.215 .196 .136	-0.210 .201 .164	-0.254 .225 .182	-0.286 .245 .168	-0.318 .245 .183	-0.292 .210 .164	-0.271 .127 .124	-0.174 .086 .079	-0.165 .045 .045	-0.163 .051 .031	-0.163 .059 .022	-0.147 .069 .022	-0.148 .071 .037	-0.162 .089 .048	-0.162

TABLE I.- Continued

PRESSURE COEFFICIENTS FOR FUSELAGE ALONE

(d) $M = 0.99$

ϕ , deg	Pressure coefficients for x_b/l_b of -																					
	0.160	0.200	0.240	0.280	0.320	0.360	0.400	0.440	0.480	0.520	0.560	0.600	0.640	0.680	0.720	0.760	0.800	0.840	0.880	0.920	0.960	
$\alpha = -0.1^\circ; \beta = 0^\circ$																						
30.0 00.0	0.178 .184	0.149 .159	0.096 .109	0.050 .069	-0.008 .026	0.002 .008	-0.064 .065	-0.073 .073	-0.104 .082	-0.132 .125	-0.143 .146	-0.159 .180	-0.165 .205	-0.187 .200	-0.140 .169	-0.116 .125	-0.077 .064	-0.061 .053	-0.047 .049	-0.011 .008	-0.003 .002	
$\alpha = -0.1^\circ; \beta = -4.5^\circ$																						
30.0 00.0 -30.0	0.197 .172 .122	0.173 .146 .093	0.126 .098 .039	0.078 .058 .003	0.017 .009 .019	0.033 .022 .043	-0.037 .079 .104	-0.052 .089 .092	-0.090 .109 .116	-0.114 .139 .169	-0.134 .159 .167	-0.161 .188 .189	-0.182 .222 .193	-0.202 .217 .209	-0.170 .168 .159	-0.126 .123 .122	-0.090 .096 .088	-0.075 .073 .069	-0.057 .060 .055	-0.021 .006 .025	-0.005 .018 .025	
$\alpha = -0.1^\circ; \beta = -8.6^\circ$																						
30.0 00.0 -30.0	0.186 .126 .035	0.175 .098 .010	0.137 .054 .036	0.093 .018 .055	0.028 .044 .094	0.046 .050 .094	-0.023 .124 .137	-0.040 .123 .166	-0.086 .158 .177	-0.109 .164 .233	-0.138 .164 .222	-0.163 .187 .238	-0.192 .227 .239	-0.212 .277 .184	-0.179 .229 .184	-0.163 .187 .141	-0.132 .155 .108	-0.111 .127 .085	-0.089 .098 .060	-0.037 .040 .040	-0.020 .063 .060	
$\alpha = 5.1^\circ; \beta = 0^\circ$																						
30.0 00.0	0.108 .107	0.091 .091	0.045 .045	0.006 .006	-0.011 .024	-0.011 .057	-0.090 .110	-0.085 .110	-0.106 .092	-0.138 .119	-0.150 .155	-0.177 .184	-0.177 .209	-0.183 .195	-0.193 .132	-0.149 .093	-0.119 .073	-0.084 .045	-0.061 .014	-0.026 .005	-0.010 .023	
$\alpha = 5.1^\circ; \beta = -4.5^\circ$																						
30.0 00.0 -30.0	0.115 .097 .068	0.109 .080 .055	0.066 .036 .020	0.037 .020 .004	-0.006 .017 .045	0.008 .052 .043	-0.082 .118 .115	-0.086 .118 .106	-0.121 .127 .124	-0.144 .140 .161	-0.157 .173 .164	-0.191 .200 .182	-0.200 .230 .186	-0.219 .214 .185	-0.186 .154 .137	-0.186 .111 .102	-0.160 .086 .071	-0.118 .057 .048	-0.095 .026 .018	-0.064 .010 .008	-0.034 .038 .030	
$\alpha = 5.1^\circ; \beta = -8.6^\circ$																						
30.0 00.0 -50.0	0.100 .054 .002	0.095 .028 .007	0.054 .028 .043	0.028 .030 .065	0.028 .098 .093	0.010 .114 .109	-0.013 .175 .157	-0.096 .181 .146	-0.101 .204 .164	-0.140 .204 .200	-0.171 .237 .193	-0.189 .265 .206	-0.228 .298 .193	-0.247 .282 .193	-0.271 .217 .144	-0.252 .217 .110	-0.236 .163 .082	-0.188 .123 .060	-0.161 .085 .042	-0.127 .054 .050	-0.077 .038 .075	
$\alpha = 10.3^\circ; \beta = 0^\circ$																						
30.0 00.0	0.046 .046	0.037 .037	0.003 .003	-0.022 .017	-0.060 .030	-0.034 .078	-0.131 .150	-0.125 .117	-0.141 .127	-0.172 .155	-0.172 .172	-0.201 .191	-0.206 .217	-0.200 .181	-0.156 .121	-0.122 .087	-0.087 .067	-0.069 .046	-0.047 .023	-0.031 .001	-0.049 .018	
$\alpha = 10.3^\circ; \beta = -4.5^\circ$																						
30.0 00.0 -30.0	0.055 .049 .024	0.047 .037 .034	0.008 .010 .014	-0.029 .026 .046	-0.069 .087 .071	-0.058 .155 .057	-0.140 .155 .135	-0.143 .156 .125	-0.169 .143 .137	-0.189 .161 .170	-0.189 .180 .167	-0.194 .198 .188	-0.235 .224 .189	-0.238 .224 .179	-0.242 .191 .179	-0.205 .135 .130	-0.169 .100 .099	-0.123 .079 .065	-0.100 .061 .050	-0.071 .042 .025	-0.077 .025 .013	-0.063 .046 .025
$\alpha = 10.3^\circ; \beta = -8.6^\circ$																						
30.0 00.0 -30.0	0.011 .001 .026	0.020 .013 .015	-0.024 .062 .058	-0.072 .080 .088	-0.094 .129 .094	-0.113 .131 .150	-0.180 .207 .146	-0.194 .204 .146	-0.224 .205 .159	-0.251 .212 .187	-0.264 .233 .185	-0.311 .250 .204	-0.320 .267 .203	-0.341 .229 .190	-0.316 .175 .142	-0.278 .142 .107	-0.217 .118 .067	-0.193 .097 .051	-0.154 .072 .010	-0.094 .052 .004	-0.109 .065 .008	

TABLE I.- Continued

PRESSURE COEFFICIENTS FOR FUSELAGE ALONE

(e) $M = 1.02$

ϕ , deg	Pressure coefficients for x_b/l_b of -																				
	0.160	0.200	0.240	0.280	0.320	0.360	0.400	0.440	0.480	0.520	0.560	0.600	0.640	0.680	0.720	0.760	0.800	0.840	0.880	0.920	0.960
$\alpha = -0.1^\circ; \beta = 0^\circ$																					
30.0	0.212	0.184	0.132	0.081	0.023	0.022	-0.028	-0.041	-0.077	-0.110	-0.123	-0.147	-0.160	-0.181	-0.144	-0.124	-0.094	-0.083	-0.076	-0.082	-0.072
00.0	.214	.187	.137	.093	.040	.015	-.037	-.049	-.067	-.110	-.132	-.168	-.195	-.193	-.167	-.131	-.087	-.072	-.075	-.062	-.068
$\alpha = -0.1^\circ; \beta = -4.3^\circ$																					
30.0	0.228	0.206	0.159	0.110	0.043	0.055	-0.006	-0.017	-0.061	-0.089	-0.112	-0.142	-0.169	-0.191	-0.165	-0.154	-0.102	-0.097	-0.086	-0.093	-0.081
00.0	.201	.174	.126	.084	.020	-.008	-.051	-.063	-.090	-.122	-.146	-.181	-.213	-.211	-.169	-.138	-.114	-.099	-.096	-.083	-.089
-30.0	.163	.133	.078	.035	-.006	-.025	-.059	-.059	-.090	-.141	-.141	-.166	-.172	-.191	-.154	-.127	-.099	-.088	-.082	-.085	-.084
$\alpha = -0.1^\circ; \beta = -8.6^\circ$																					
30.0	0.218	0.206	0.168	0.123	0.052	0.071	-0.005	-0.016	-0.058	-0.082	-0.117	-0.143	-0.177	-0.201	-0.176	-0.164	-0.145	-0.136	-0.120	-0.127	-0.110
00.0	.156	.126	.081	.046	-.027	-.045	-.110	-.097	-.137	-.147	-.189	-.230	-.272	-.277	-.237	-.209	-.176	-.160	-.153	-.138	-.141
-30.0	.071	.048	.003	-.020	-.100	-.107	-.135	-.126	-.147	-.205	-.198	-.218	-.219	-.226	-.181	-.148	-.123	-.108	-.102	-.104	-.114
$\alpha = 5.1^\circ; \beta = 0^\circ$																					
30.0	0.140	0.123	0.074	0.033	0.019	0.003	-0.060	-0.061	-0.095	-0.123	-0.136	-0.166	-0.172	-0.191	-0.156	-0.133	-0.106	-0.094	-0.087	-0.089	-0.092
00.0	.139	.121	.072	.031	-.005	-.024	-.079	-.090	-.084	-.105	-.143	-.171	-.199	-.190	-.139	-.104	-.090	-.072	-.070	-.066	-.083
$\alpha = 5.1^\circ; \beta = -4.3^\circ$																					
30.0	0.147	0.143	0.099	0.065	0.023	0.020	-0.053	-0.058	-0.100	-0.129	-0.146	-0.178	-0.191	-0.216	-0.190	-0.175	-0.144	-0.131	-0.121	-0.124	0.114
00.0	.126	.108	.063	.049	-.012	-.024	-.090	-.094	-.116	-.131	-.165	-.191	-.223	-.214	-.165	-.128	-.109	-.092	-.088	-.082	-.100
-30.0	.106	.090	.056	.022	-.009	-.023	-.078	-.079	-.103	-.137	-.144	-.166	-.169	-.178	-.137	-.111	-.088	-.077	-.072	-.075	-.087
$\alpha = 5.1^\circ; \beta = -8.6^\circ$																					
30.0	0.133	0.129	0.088	0.058	0.003	0.012	-0.073	-0.075	-0.120	-0.149	-0.174	-0.209	-0.229	-0.257	-0.247	-0.240	-0.208	-0.190	-0.175	-0.179	-0.159
00.0	.088	.063	.018	.000	-.079	-.097	-.147	-.150	-.184	-.187	-.223	-.250	-.284	-.276	-.222	-.177	-.151	-.128	-.120	-.111	-.128
-30.0	.032	.042	-.006	-.036	-.079	-.093	-.125	-.118	-.158	-.174	-.173	-.189	-.186	-.147	-.121	-.104	-.097	-.098	-.111	-.133	
$\alpha = 10.2^\circ; \beta = 0^\circ$																					
30.0	0.078	0.069	0.033	-0.001	-0.033	-0.035	-0.105	-0.109	-0.132	-0.162	-0.170	-0.199	-0.206	-0.215	-0.175	-0.149	-0.118	-0.111	-0.107	-0.107	-0.120
00.0	.077	.067	.024	.005	-.024	-.048	-.119	-.106	-.113	-.137	-.160	-.178	-.204	-.179	-.129	-.100	-.090	-.077	-.074	-.073	-.091
$\alpha = 10.2^\circ; \beta = -4.3^\circ$																					
30.0	0.078	0.078	0.034	-0.016	-0.053	-0.056	-0.125	-0.133	-0.167	-0.195	-0.204	-0.244	-0.253	-0.274	-0.239	-0.212	-0.172	-0.161	-0.151	-0.145	-0.145
00.0	.070	.062	.008	-.012	-.055	-.074	-.138	-.131	-.141	-.159	-.182	-.200	-.225	-.198	-.151	-.124	-.114	-.104	-.106	-.108	-.129
-30.0	.061	.072	.026	-.013	-.034	-.038	-.103	-.102	-.117	-.149	-.153	-.175	-.178	-.180	-.138	-.114	-.089	-.083	-.085	-.085	-.099
$\alpha = 10.2^\circ; \beta = -8.6^\circ$																					
30.0	0.044	0.058	0.012	-0.039	-0.092	-0.086	-0.156	-0.163	-0.202	-0.233	-0.248	-0.291	-0.308	-0.333	-0.314	-0.289	-0.240	-0.226	-0.209	-0.199	-0.185
00.0	.030	.022	-.027	-.049	-.116	-.119	-.176	-.175	-.190	-.194	-.216	-.234	-.255	-.224	-.178	-.152	-.140	-.129	-.125	-.122	-.139
-30.0	.007	.020	-.023	-.061	-.075	-.088	-.123	-.120	-.135	-.165	-.167	-.186	-.187	-.183	-.143	-.116	-.084	-.079	-.065	-.077	-.081

TABLE I.- Continued

PRESSURE COEFFICIENTS FOR FUSELAGE ALONE

(f) $M = 1.08$

ϕ , deg	Pressure coefficients for x_b/l_b of -																				
	0.160	0.200	0.240	0.280	0.320	0.360	0.400	0.440	0.480	0.520	0.560	0.600	0.640	0.680	0.720	0.760	0.800	0.840	0.880	0.920	0.960
$\alpha = -0.1^\circ; \beta = 0^\circ$																					
30.0 00.0	0.211 .218	0.198 .209	0.155 .168	0.109 .129	0.023 .061	0.035 .023	-0.012 -.011	-0.020 -.019	-0.039 -.027	-0.073 -.058	-0.071 -.079	-0.096 -.116	-0.100 -.143	-0.129 -.142	-0.094 -.121	-0.079 -.083	-0.053 -.041	-0.040 -.050	-0.028 -.026	-0.032 -.017	-0.021 -.014
$\alpha = -0.1^\circ; \beta = -4.3^\circ$																					
30.0 00.0 -30.0	0.234 .210 .158	0.225 .199 .145	0.186 .160 .107	0.138 .120 .066	0.061 .041 .003	0.067 .017 .007	0.014 -.026 -.050	0.003 -.032 -.047	-0.026 -.043 -.057	-0.051 -.069 -.104	-0.065 -.089 -.095	-0.094 -.122 -.120	-0.115 -.153 -.123	-0.141 -.155 -.144	-0.112 -.117 -.110	-0.088 -.085 -.085	-0.060 -.061 -.058	-0.049 -.049 -.042	-0.037 -.050 -.029	-0.047 -.026 -.023	-0.026 .016
$\alpha = -0.1^\circ; \beta = -8.6^\circ$																					
30.0 00.0 -30.0	0.228 .165 .075	0.222 .145 .068	0.190 .111 .043	0.152 .091 .011	0.079 .013 .086	0.095 -.015 -.077	0.023 -.082 -.119	0.010 -.074 -.102	-0.021 -.095 -.103	-0.043 -.109 -.159	-0.072 -.139 -.154	-0.099 -.178 -.165	-0.121 -.210 -.162	-0.143 -.216 -.171	-0.129 -.179 -.122	-0.120 -.148 -.061	-0.094 -.096 -.037	-0.077 -.064 -.035	-0.032 -.063 -.044	-0.037 -.060 -.057	-0.050 -.074
$\alpha = 5.1^\circ; \beta = 0^\circ$																					
30.0 00.0	0.140 .142	0.138 .139	0.102 .101	0.062 .060	0.031 .001	0.009 -.010	-0.025 -.039	-0.025 -.045	-0.053 -.058	-0.082 -.065	-0.094 -.105	-0.119 -.129	-0.119 -.145	-0.131 -.135	-0.101 -.089	-0.084 -.058	-0.058 -.045	-0.042 -.030	-0.031 -.023	-0.025 -.007	0.005 .021
$\alpha = 5.1^\circ; \beta = -4.3^\circ$																					
30.0 00.0 -30.0	0.153 .133 .104	0.166 .134 .120	0.129 .103 .093	0.089 .074 .049	0.045 -.006 -.007	0.041 -.047 -.010	-0.021 -.045 -.051	-0.016 -.065 -.047	-0.053 -.088 -.070	-0.087 -.123 -.096	-0.104 -.145 -.116	-0.129 -.145 -.116	-0.139 -.159 -.116	-0.159 -.135 -.122	-0.135 -.120 -.088	-0.120 -.090 -.064	-0.090 -.073 -.041	-0.062 -.062 -.018	-0.043 -.012 -.005	-0.018 -.012 -.013	
$\alpha = 5.1^\circ; \beta = -8.6^\circ$																					
30.0 00.0 -30.0	0.144 .096 .038	0.145 .080 .071	0.117 .052 .031	0.088 .038 -.007	0.088 -.046 -.065	0.042 -.064 -.071	0.041 -.121 -.097	-0.041 -.113 -.087	-0.043 -.137 -.093	-0.081 -.146 -.129	-0.105 -.179 -.123	-0.134 -.179 -.137	-0.163 -.201 -.137	-0.177 -.226 -.133	-0.202 -.216 -.123	-0.194 -.153 -.063	-0.183 -.155 -.039	-0.140 -.087 -.040	-0.098 -.061 -.040	-0.082 -.052 -.050	-0.099 -.055 -.071
$\alpha = 10.3^\circ; \beta = 0^\circ$																					
30.0 00.0	0.074 .075	0.085 .084	0.065 .054	0.023 .030	0.003 -.006	-0.019 -.017	-0.053 -.066	-0.055 -.061	-0.080 -.075	-0.110 -.102	-0.116 -.120	-0.136 -.132	-0.134 -.148	-0.135 -.124	-0.102 -.076	-0.080 -.047	-0.051 -.037	-0.032 -.015	-0.006 -.020	-0.005 -.016	-0.031 -.010
$\alpha = 10.3^\circ; \beta = -4.3^\circ$																					
30.0 00.0 -30.0	0.089 .088 .054	0.096 .085 .097	0.070 .057 .055	0.019 .024 .007	-0.003 -.022 -.043	-0.023 -.015 -.057	-0.067 -.068 -.062	-0.070 -.073 -.060	-0.107 -.089 -.080	-0.137 -.107 -.106	-0.145 -.126 -.110	-0.168 -.138 -.116	-0.173 -.153 -.119	-0.181 -.132 -.116	-0.151 -.086 -.080	-0.126 -.057 -.055	-0.092 -.040 -.001	-0.060 -.015 -.001	-0.031 -.011 -.005	-0.027 -.010 -.015	-0.041 -.039 -.031
$\alpha = 10.3^\circ; \beta = -8.6^\circ$																					
30.0 00.0 -30.0	0.066 .047 -.007	0.072 .048 -.047	0.042 .019 -.027	0.003 -.005 -.057	-0.043 -.072 -.077	-0.041 -.122 -.083	-0.112 -.119 -.084	0.115 -.135 -.094	-0.154 -.139 -.118	-0.178 -.159 -.118	-0.191 -.159 -.122	-0.223 -.177 -.134	-0.232 -.140 -.127	-0.246 -.089 -.096	-0.222 -.068 -.060	-0.183 -.058 -.044	-0.128 -.058 -.040	-0.117 -.058 -.031	-0.109 -.062 -.020	-0.116 -.060 -.029	-0.114 -.079 -.034

TABLE I.- Concluded

PRESSURE COEFFICIENTS FOR FUSELAGE ALONE

(g) $M = 1.13$

ϕ , deg	Pressure coefficients for x_b/l_b of -																				
	0.160	0.200	0.240	0.280	0.320	0.360	0.400	0.440	0.480	0.520	0.560	0.600	0.640	0.680	0.720	0.760	0.800	0.840	0.880	0.920	0.960
$\alpha = -0.1^\circ; \beta = 0^\circ$																					
30.0 00.0	0.195 .199	0.183 .189	0.153 .159	0.120 .134	0.057 .071	0.050 .031	0.000 .010	-0.007 .010	-0.025 .027	-0.067 .066	-0.069 .087	-0.093 .116	-0.106 .141	-0.123 .132	-0.100 .119	-0.083 .093	-0.058 .058	-0.053 .043	-0.046 .044	-0.050 .031	-0.042 .037
$\alpha = -0.1^\circ; \beta = -4.3^\circ$																					
30.0 00.0 -30.0	0.217 .189 .147	0.204 .170 .129	0.179 .153 .108	0.146 .126 .097	0.067 .052 .023	0.082 .015 .011	0.023 .029 .023	0.012 .033 .026	-0.020 .050 .046	-0.053 .070 .095	-0.073 .105 .098	-0.099 .128 .124	-0.110 .154 .123	-0.130 .155 .144	-0.105 .126 .110	-0.096 .112 .092	-0.069 .090 .067	-0.069 .074 .055	-0.061 .070 .047	-0.064 .058 .051	-0.056 .058 .049
$\alpha = -0.1^\circ; \beta = -8.6^\circ$																					
30.0 00.0 -30.0	0.212 .149 .078	0.200 .119 .049	0.180 .096 .051	0.145 .092 .024	0.086 .025 .063	0.099 .009 .052	0.036 .077 .104	0.019 .076 .100	-0.021 .105 .109	-0.052 .116 .153	-0.068 .140 .155	-0.092 .178 .167	-0.110 .215 .166	-0.140 .220 .178	-0.130 .194 .145	-0.125 .182 .107	-0.100 .128 .082	-0.102 .128 .075	-0.090 .117 .071	-0.094 .102 .073	-0.082 .101 .075
$\alpha = 5.1^\circ; \beta = 0^\circ$																					
30.0 00.0	0.131 .127	0.125 .120	0.110 .107	0.073 .071	0.030 .012	0.025 .011	-0.021 .045	-0.027 .058	-0.057 .065	-0.089 .075	-0.094 .103	-0.108 .108	-0.113 .135	-0.137 .133	-0.116 .100	-0.102 .074	-0.079 .065	-0.067 .049	-0.062 .043	-0.062 .034	-0.055 .040
$\alpha = 5.1^\circ; \beta = -4.3^\circ$																					
30.0 00.0 -30.0	0.143 .120 .093	0.147 .109 .096	0.127 .099 .087	0.095 .083 .057	0.042 .017 .004	0.045 .008 .001	-0.027 .063 .044	-0.024 .058 .044	-0.060 .082 .062	-0.094 .098 .097	-0.098 .112 .118	-0.121 .155 .119	-0.130 .158 .119	-0.154 .149 .119	-0.139 .133 .102	-0.133 .083 .083	-0.113 .061 .061	-0.099 .047 .047	-0.092 .058 .041	-0.094 .045 .044	-0.080 .050 .047
$\alpha = 5.1^\circ; \beta = -8.6^\circ$																					
00.0 -30.0	0.073 .037	0.046 .042	0.025 .027	-0.008 .004	-0.017 .060	-0.070 .058	-0.118 .091	-0.118 .086	-0.116 .097	-0.137 .128	-0.170 .127	-0.199 .141	-0.217 .141	-0.212 .139	-0.167 .108	-0.132 .089	-0.118 .074	-0.100 .070	-0.090 .069	-0.079 .077	-0.090 .090
$\alpha = 10.3^\circ; \beta = 0^\circ$																					
30.0 00.0	0.079 .080	0.078 .072	0.077 .059	0.038 .028	-0.024 .013	-0.022 .035	-0.071 .078	-0.072 .071	-0.089 .073	-0.103 .079	-0.110 .102	-0.135 .118	-0.142 .134	-0.157 .126	-0.129 .094	-0.113 .068	-0.090 .064	-0.078 .048	-0.068 .036	-0.068 .026	-0.068 .034
$\alpha = 10.3^\circ; \beta = -4.3^\circ$																					
30.0 00.0 -30.0	0.080 .076 .055	0.088 .070 .080	0.067 .062 .062	0.027 .024 .020	-0.029 .033 .037	-0.031 .049 .059	-0.091 .096 .057	-0.099 .078 .077	-0.109 .090 .099	-0.134 .103 .097	-0.148 .121 .097	-0.170 .133 .116	-0.181 .148 .117	-0.200 .138 .128	-0.178 .110 .100	-0.166 .089 .082	-0.142 .087 .058	-0.127 .073 .052	-0.103 .063 .048	-0.088 .055 .042	-0.085 .073 .051
$\alpha = 10.3^\circ; \beta = -8.6^\circ$																					
30.0 00.0 -30.0	0.062 .035 .004	0.051 .016 .033	0.025 .008 .018	-0.005 .019 .017	-0.063 .093 .057	-0.047 .090 .070	-0.121 .140 .079	-0.130 .132 .079	-0.161 .142 .075	-0.181 .147 .091	-0.198 .163 .115	-0.229 .173 .118	-0.247 .186 .118	-0.275 .173 .132	-0.261 .143 .107	-0.253 .119 .091	-0.226 .111 .091	-0.204 .099 .060	-0.168 .088 .055	-0.147 .081 .036	-0.134 .090 .036

TABLE II

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(a) $M = 0.80$; $\alpha = 0^\circ$

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TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(b) $M = 0.80; \alpha = 5.1^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828
CONFIDENTIAL																	
0.0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.462	0.219 .219 0.496	0.274	0.054 .024	0.044 .020	-0.063 -.079		-0.184 -.257	-0.198 -.372	-0.135 -.422	-0.135 -.266	-0.137 -.170	-0.065 -.127	-0.051 -.053	0.021 -.019	
-4.3	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.503	0.368 .368 0.510	0.373	0.150 .126	0.121 .105	0.010 .001		-0.129 -.178	-0.166 -.220	-0.131 -.220	-0.131 -.213	-0.118 -.108	-0.118 -.118	0.001 -.118		
4.3	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.370	0.489	0.309	0.185	-0.209 -.225	-0.482 -.511	-0.098 -0.292	-0.098 -0.156	-0.098 -.080	-0.037 -.047	-0.004 -.004					
-8.6	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.479	0.485 .485 0.487	0.455	0.253 .237	0.209 .198	0.100 .099		-0.056 -.089	-0.119 -.191	-0.116 -.137	-0.116 -.126	-0.197 -.173	-0.197 -.197			
8.6	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.235	0.458	0.268	0.108	-0.235 -0.431	-0.644 -.658	-0.391	-0.244	-0.183 -.243	-0.067 -.121	-0.027 -.145					

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TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(c) $M = 0.80$; $\alpha = 10.2^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/i of -																	
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828	0.988	
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.422	0.244 .244 0.440	0.268 .052 .305	0.068 .028 .195	0.045 .014 .174	-0.050 -.075 -.145	-0.210 -.285 -.424	-0.256 -.284 -.500	-0.195 -.195 -.179	-0.064 -.064 -.090	0.043							
-4.3	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.438	0.373 .373 0.441	0.353 0.297 .210	0.154 .126 .085	0.116 .107 .119	0.026 .007 -.049	-0.149 -.207 -.351	-0.219 -.272 -.469	-0.194 -.194 -.335	-0.121 0.005								
4.3	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.361	0.415 0.411 0.221 0.060	0.220 0.079 .079 -.012	0.105 -0.093 -.259 -.092	-0.330 -.485 -.465	-0.470 -.284 -.270	-0.579 -.328 -.328	-0.478 -.177 -.165	-0.318 -.177 -.161	-0.149 -.071 -.061	-0.098 -0.049 0.005							
-8.6	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.389	0.443 .443 0.401	0.243 .210 .290	0.198 .178 .159	0.099 .074 .016	-0.085 -.145 -.303	-0.180 -.259 -.379	-0.180 -.199 -.361	-0.187 -.187 -.231	-0.189 -0.071 -.189	-0.014							
8.6	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.231	0.365 0.325 0.052 -0.239	0.174 0.131 -.131	0.026 -0.328 -.452	-0.348 -.647 -.469	-0.642 -.273 -.149	-0.764 -.426 -.262	-0.605 -.426 -.144	-0.359 -.359 -.361	-0.215 -.055 -.164	-0.154 -0.055 -.062	-0.068 -0.087 -0.019						

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TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(d) $M = 0.90; \alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -														
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600
0.1	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.226 .226 0.529	0.294 0.579	0.054 .055 .051 .059 .058 0.620	0.066 .055 .051 .059 .058 .058	-0.069 -.051 -.051 -.059 -.058 -.068	-0.228 -.228 -.228 -.327 -.305 -.305	-0.228 -.081 -.081 -.481 -.508 -.506	-0.081 -.036 -.036 -.114 -.527 -.527	-0.036 0.024						
-4.2	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.411 .411 0.588	0.422 0.604	0.168 .158 .146 .042 .141 .079 .145 .365 .436	0.150 .158 .146 .141 .282 .249 .079 .365 .309	0.016 .016 .016 .016 .016 .016 .016 .461 .461	-0.151 -.158 -.158 -.116 -.199 -.443 -.512 -.461	-0.158 -.083 -.083 -.211 -.321 -.153 -.135 -.512	-0.083 -0.093 -0.093 -.065 -.065 -.065 -.081 -.081	-0.093 0.001						
4.5	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.598 0.533 0.438	0.598 0.529 0.001	0.434 0.319 -0.094 .187 -.074 -.222 -.133 -.141 .161 -.098 -.041 -.057 -.015	0.280 .280 .280 .280 .261 .354 .188 .185 .344 .344 .344 -.160	0.109 .142 .142 .142 .188 .315 .583 .100 .372 .077 -.270 -.270 -.270 -.270	-0.057 -.398 -.398 -.398 -.398 -.398 -.398 -.398 -.398 -.398 -.398 -.398 -.398 -.398	-0.578 -.602 -.574 -.574 -.578 -.578 -.583 -.100 -.372 -.077 -.270 -.270 -.270 -.270	-0.096 -.108 -.108 -.108 -.108 -.108 -.108 -.108 -.108 -.108 -.108 -.108 -.108 -.108	-0.019 -.072 -.072 -.072 -.072 -.072 -.072 -.072 -.072 -.072 -.072 -.072 -.072 -.072	0.002					
-8.6	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.545 .545 0.594	0.519 0.558 0.461	0.280 0.515 0.177 -0.366 -0.014 -.355 -.454 -.207 -.314 -.236 -.251 -.143 -.187 -.103 -.217	0.242 .261 .402 .472 .354 .188 .185 .344 .344 .344 -.277 -.571 -.597 -.250 -.160 -.685 -.277 -.397 -.397	0.109 .142 .261 .354 .188 .185 .344 .344 .344 -.277 -.571 -.597 -.250 -.160 -.685 -.277 -.397 -.397	-0.060 -.021 -.106 -.366 -.106 -.366 -.366 -.160	-0.099 -.169 -.240 -.240 -.240 -.240 -.240 -.160	-0.099 -.102 -.114 -.114 -.114 -.114 -.114 -.160	-0.074 -.102 -.167 -.167 -.167 -.167 -.167 -.167	-0.167 -0.030					
8.8	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.565 0.461 0.312	0.565 0.177 -0.366 -0.014 -.355 -.454 -.207 -.314 -.236 -.251 -.143 -.187 -.103 -.217	0.393 0.244 -0.299 -0.014 -.355 -.454 -.207 -.314 -.236 -.251 -.143 -.187 -.103 -.217	0.242 0.242 0.242 0.242 0.242 0.242 0.242 0.242 0.242 0.242 0.242 0.242 0.242 0.242 0.242	-0.081 -.514 -.833 -.741 -.741 -.741 -.741 -.741 -.741 -.741 -.741 -.741 -.741 -.741 -.741	-0.701 -.833 -.833 -.741 -.635 -.635 -.418 -.391 -.391 -.391 -.391 -.391 -.391 -.391 -.391	-0.741 -.132 -.132 -.221 -.693 -.693 -.391 -.080 -.080 -.074 -.074 -.074 -.074 -.074 -.074	-0.226 -.079 -.079 -.155 -.656 -.656 -.391 -.074 -.074 -.074 -.074 -.074 -.074 -.074 -.074	-0.066 -.138 -.138 -.071 -.100 -.100 -.173 -.068 -.068 -.068						

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(e) $M = 0.90; \alpha = 5.1^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.257 .257 0.504	0.257 0.314 0.534 .396 .241 .143 .053 .265 .072 .085 .379 .587 .537 .142 .066 .056	0.081 .050 0.314 .396 .241 .143 .053 .265 .072 .085 .379 .587 .537 .142 .066 .056	0.072 .050 0.072 .053 .085 .379 .587 .537 .142 .066 .056	-0.043 -.053 -.024 .260 .356 .449 .592 .654 .090 .056 .026 .016 .018	-0.242 -.228 -.374 -.139 -.129 -.142 -.066 -.056	-0.374 -.457 -.537 -.139 -.129 -.142 -.066 -.056	-0.139 -.139 -.142 -.066 -.056	-0.056 -.124 -.124 -.066 -.056	0.18						
-4.3	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.409 .409 0.544	0.409 0.414 0.550 .463 .376 .240 .135 .351 .192 .031 .267 .344 .267 .344	0.178 .156 .156 .135 .050 0.031 -.149 -.266 -.547 -.469 -.204 -.113 -.124	0.148 .124 .124 .053 .031 .053 -.266 -.266 -.448 -.547 -.650 -.144 -.090 .051 .044 .004	0.031 -.053 -.053 -.053 -.053 -.053 -.053 -.053 -.053 -.053 -.053 -.053 -.053 -.053 -.053 -.053 -.053	-0.165 -.149 -.266 -.547 -.469 -.204 -.113 -.124	-0.271 -.389 -.469 -.204 -.113 -.124	-0.154 -.154 -.150 -.113 -.124	-0.124 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042	-0.004						
4.3	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.525 0.494 0.421 0.039 .039	0.525 0.414 0.550 .463 .376 .240 .135 .351 .192 .031 .267 .344 .267 .344	0.343 0.223 0.223 0.164 0.088 0.123 -.104 -.239 -.503 -.647 -.617 -.101 -.042 -.038	0.223 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164 0.164	-0.141 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533 -.0533	-0.533 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525 -.525	-0.652 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503	-0.682 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503 -.503	-0.107 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099 -.099	-0.097 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042 -.042	-0.042 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052 -.052	-0.007				
-8.7	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.522 .522 0.523	0.522 0.495 0.529 .489 0.450 .366 .385 .233 .284 .135 .079 .249 .306 .249	0.281 .265 .265 .228 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125	0.238 .228 .228 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125 .125	0.120 .065 .065 .065 .065 .065 .065 .065 .065 .065 .065 .065 .065 .065 .065 .065 .065 .065 .065	-0.078 -.065 -.065 -.065 -.065 -.065 -.065 -.065 -.065 -.065 -.065 -.065 -.065 -.065 -.065 -.065 -.065 .078	-0.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175 -.175	-0.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159 -.159	-0.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195 -.195	-0.024						
8.7	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.479 0.424 0.303 -0.223 -0.223	0.479 0.306 0.151 -0.371 0.141 -0.268 -.046 -.322 -.433 -.639 -.719 -.650 -.134 -.059 -.107	0.306 0.151 0.151 0.151 0.141 -0.268 -.046 -.322 -.433 -.639 -.719 -.650 -.134 -.059 -.107	-0.165 -.0610 -.0610 -.0610 -.197 -.254 -.197 -.254 -.414 -.496 -.496 -.496 -.496 -.496 -.496 -.496 -.496 -.496	-0.784 -.910 -.910 -.910 -.219 -.219 -.197 -.197 -.414 -.496 -.496 -.496 -.496 -.496 -.496 -.496 -.496 -.496	-0.787 -.202 -.202 -.202 -.779 -.779 -.779 -.779 -.485 -.351 -.351 -.351 -.351 -.351 -.351 -.351 -.351 -.351	-0.202 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146 -.146	-0.163 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085 -.085	-0.069 -.030							

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(f) $M = 0.90; \alpha = 10.2^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.280 .280 0.460	0.305 0.476		0.095 .057	0.069 .059	-0.024 .041		-0.228 -.388	-0.401 -.653	-0.200 -.536		-0.068 -.160		-0.041 -.090	-0.068	
-4.5	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.410 .410 0.480	0.392 0.482		0.184 .156	0.148 .141	0.054 .041		-0.155 -.309	-0.313 -.612	-0.253 -.573		-0.115 -.154		-0.005 -.115		
4.5	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.452 0.454 0.403		0.252 0.249 0.207	0.142 0.082 -.053		-0.259 -.071 -.007	-0.606 -.226 -.099	-0.723 -.668 -.651	-0.728 -.613 -.746	-0.679 -.133 -.163		-0.104 -.101 -.107		-0.047 -.052 -.047	0.004	
-8.7	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.490 .490 0.432	0.444 0.458		0.279 .247	0.235 .215	0.133 .115		-0.077 -.244	-0.218 -.578	-0.263 -.545		-0.178 -.230		-0.012 -.178		
8.7	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.406 0.384 0.295		0.213 0.113 0.077	0.076 -.063 -.145		-0.285 -.268 -.386	-0.673 -.192	-0.807 -.386	-0.919 -.179	-0.658 -.523		-0.148 -.133 -.153		-0.070 -.063 -.104		

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(g) $M = 0.95; \alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828
0.3	P.L.	0.255					0.070	0.087	-0.040		-0.232	-0.362	-0.265		-0.056	0.017	
	57.5	.255					.052	.078				.362					
	45.0	0.568															
	30.0																
	15.0																
	10.0																
	07.0																
	03.0																
	00.0																
-4.0	P.L.	0.435					0.183	0.167	0.037		-0.153	-0.272	-0.196		-0.093	-0.005	
	57.5	.435					.174	.167				.272					
	45.0	0.622															
	30.0																
	15.0																
	10.0																
	07.0																
	03.0																
	00.0																
4.7	P.L.	0.435					0.445	0.183	0.167	0.037		-0.153	-0.272	-0.196		-0.093	-0.005
	57.5	.435					.555	.427	.300	.156							
	45.0	0.622															
	30.0																
	15.0																
	10.0																
	07.0																
	03.0																
	00.0																
-8.5	P.L.	0.571					0.621	0.463	0.345		-0.009	-0.349	-0.535		-0.061	-0.023	-0.007
	57.5	.571															
	45.0	0.637															
	30.0																
	15.0																
	10.0																
	07.0																
	03.0																
	00.0																
9.2	P.L.	0.571					0.595	0.431									
	57.5	.571															
	45.0	0.637															
	30.0																
	15.0																
	10.0																
	07.0																
	03.0																
	00.0																

CONTINUED

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(h) $M = 0.95$; $\alpha = 5.1^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.290 .290 0.536	0.290 0.548 0.565	0.108 .079 .429	0.105 .086 .271	-0.009 -.014 .173	-0.208 -0.373 -0.373	-0.343 -.343 -.341	-0.477 -.542 -.542	-0.416 -.026 -.026	-0.053 -.053 -.053	0.017 -.017 -.017					
-4.4	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.436 .436 0.572	0.436 0.441 0.578	0.203 .181 .491	0.178 .163 0.399	0.059 .061 .265	-0.143 -0.308 -0.308	-0.306 -.306 -.304	-0.422 -.428 -.428	-0.065 -.118 -.118	-0.118 -.018 -.018	-0.006 -.006 -.006					
4.4	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.547 0.522 0.451 0.057 .057	0.547 0.368 0.311 .209	0.252 -0.129 .072 -.002	-0.092 -0.482 -.087 -.089	-0.619 -0.716 -.198 -.285	-0.658 -0.447 -.603 -.443	-0.472 -.048 -.531 -.445	-0.053 -.053 -.053 -.383	-0.046 -.066 -.009 -.039	-0.012 -.012 -.012 -.039						
-8.8	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.552 .552 0.550	0.552 0.526 0.556	0.311 .296 .521	0.270 .262 .478	0.155 .162 .267	-0.052 -0.192 -0.192	-0.232 -.232 -.292	-0.480 -0.124 -.450	-0.187 -.027 -.187	-0.187 -.027 -.187	-0.027					
8.8	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.507 0.458 0.342	0.507 0.335 0.458	0.181 -0.119 0.172	-0.740 -0.556 -.421	-0.190 -0.556 -.570	-0.762 -0.562 -.664	-0.130 -0.120 -.592	-0.071 -.128 -.376	-0.034 -.082 -.028	-0.034 -.082 -.110						

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

$$(i) M = 0.95; \alpha = 10.5^\circ$$

C_____

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(J) $M = 0.99; \alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -														
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600
0.2	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.293 .293 0.599 0.645 .506 0.317 .385 .170 0.659 .506		0.362 .362 0.480 .584 0.462 .356 .484 .308 0.413 .413	0.108 .090 .207 .073 .021 .127 .127 .127 0.017 0.017	0.128 .119 .023 .023 .021 .021 .021 .021 -.255 -.411	0.005 .005 .005 .005 .005 .005 .005 .005 -.255 -.411		-0.186 -.186 -.128 -.128 -.250 -.421 -.461 -.348 -.083 -.083	-0.325 -.325 -.395 -.395 -.421 -.461 -.348 -.083 -.083	-0.252 -.252 -.269 -.269 -.348 -.348 -.083 -.083		-0.079 -.079 -.079 -.079 -.079 -.079 -.079 -.079 -.079	-0.031 -.031 -.031 -.031 -.031 -.031 -.031 -.031 -.031		
-4.2	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.468 .468 0.652 0.669 .584 0.462 .356 .484 0.492 0.647		0.480 .480 0.492 .584 0.462 .356 .484 .308 0.492 0.492	0.219 .211 .206 .197 .149 .149 .218 .218 -0.012	0.207 .206 .109 .109 .149 .149 .218 .218 -.222 -.428	0.080 .080 .080 .080 .080 .080 .080 .080 -.012		-0.113 -.113 -.058 -.058 -.153 -.153 -.227 -.227	-0.244 -.244 -.326 -.326 -.364 -.364 -.474 -.474	-0.192 -.192 -.217 -.217 -.388 -.388 -.327 -.327		-0.138 -.138 -.138 -.138 -.138 -.138 -.138 -.138 -.055	-0.055 -.055 -.055 -.055 -.055 -.055 -.055 -.055 -.055		
4.6	00.0 05.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.649 0.601 0.509 0.504 .054		0.495 0.394 0.394 .226 -.046 -.046 -.008 0.620	0.376 0.376 -0.022 0.376 0.376 0.376 0.376 0.376 0.376	0.035 0.035 -0.022 0.035 0.035 0.035 0.035 0.035 0.035		-0.484 -.539 -.517 -.436 -.163 -.163 -.129 -.129	-0.539 -.539 -.436 -.436 -.346 -.346 -.121 -.121	-0.071 -.077 -.077 -.077 -.077 -.077 -.077 -.077		-0.059 -.059 -.059 -.059 -.059 -.059 -.059 -.059	-0.059 -.059 -.059 -.059 -.059 -.059 -.059 -.059			
-8.6	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.603 .603 0.663 0.662 .623 0.567 .529 .412 0.620 0.620		0.577 0.577 0.567 .623 .516 .529 .412 .257 .414 .459	0.332 .332 .316 .316 .296 .296 .201 .201 .256 .256 0.14	0.298 .298 .421 .421 .296 .296 .051 .051 .617 .617	0.168 .168 .144 .144 .121 .121 .121 .121 .487 .487		-0.027 -.027 0.051 0.051 -.024 -.024 -.311 -.311 -.194 -.194	-0.142 -.142 -.234 -.234 -.321 -.321 -.346 -.346 -.574 -.574	-0.121 -.121 -.155 -.155 -.251 -.251 -.251 -.251 -.267 -.267		-0.222 -.222 -.222 -.222 -.222 -.222 -.222 -.222 -.143 -.143	-0.081 -.081 -.081 -.081 -.081 -.081 -.081 -.081 -.081	-0.081 -.081 -.081 -.081 -.081 -.081 -.081 -.081 -.081	
9.1	00.0 05.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.613 0.539 0.401 -0.320 -.320		0.457 0.254 -0.319 .063 -.127	0.313 0.313 -0.213 .071 -.366 -.421 -.320 -.142 -.122	0.003 0.003 -0.213 .071 -.366 -.421 -.320 -.142 -.122		-0.591 -.591 -.573 -.573 -.573 -.573 -.541 -.541 -.448 -.448	-0.726 -.726 -.573 -.573 -.573 -.573 -.350 -.350 -.335 -.335	-0.133 -.133 -.154 -.154 -.154 -.154 -.154 -.154 -.148 -.148		-0.094 -.094 -.148 -.148 -.148 -.148 -.148 -.148 -.094	-0.094 -.094 -.148 -.148 -.148 -.148 -.148 -.148 -.094	-0.094 -.094 -.148 -.148 -.148 -.148 -.148 -.148 -.094		

C_____

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(k) $M = 0.99$; $\alpha = 5.2^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -																
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828	0.988
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.569	0.330 .330 0.595	0.388	0.147 .121	0.150 .151	0.038		-0.160	-0.318 .318	-0.317		-0.104	-0.041				
-4.4	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.606	0.476 .476 0.610	0.482	0.244 .224	0.221 .208	0.107		-0.093	-0.252 .252	-0.275		-0.175	-0.067				
4.4	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.492	0.579	0.403	0.294	-0.044	-0.405	-0.547 .628	-0.580	-0.427	-0.169 .158	-0.105 .127	-0.076					
-8.9	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.583 0.583	0.583 .583 0.586	0.558	0.344 .329	0.306 .297	0.191		-0.010	-0.168 .168	-0.208		-0.253	-0.094				
8.9	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.391	0.541	0.375	0.224	-0.070	-0.472	-0.653 .753	-0.683	-0.536	-0.253 .245	-0.137 .149	-0.102					

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(i) $M = 0.99; \alpha = 10.3^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.345 .345 0.523		0.372		0.161 .125 .133	0.143 .043	0.055		-0.134 -.321	-0.321	-0.393		-0.132	-0.011		
-4.4	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.476 .476 0.539		0.459		0.250 .224 .215	0.220 .125	0.132		-0.063 -.248	-0.248	-0.341		-0.182	-0.071		
4.4	00.0 05.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.510 0.469		0.316		0.218 -0.089		-0.158		-0.461 -.0614	-0.594 -.618	-0.209 -0.391	-0.139 -0.199	-0.069 -0.152			
-8.8	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.552 .552 0.497		0.510		0.342 .313 .287	0.303 .195	0.207		0.005 -.168	-0.168	-0.277		-0.239	-0.092		
8.8	00.0 05.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.469 0.452 0.373		0.279		0.147 -0.293		-0.179		-0.544 -.783	-0.677 -0.695	-0.470	-0.280 -0.470	-0.163 -0.294	-0.098 -0.175		

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TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(m) $M = 1.02$; $\alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -																
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828	0.988
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.344 .344 0.630	0.413 0.663 0.666	0.145 .137 .557 .415	0.170 .165 .261 .212	0.047 .072 .074 .074		-0.143 -.075 -.189 .174	-0.272 -.272 -.342 -.404	-0.217 -.217 -.231 -.307		-0.077 -.077 -0.070 -.077		-0.077 -.077 -.042 -.020				
-4.4	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.512 .512 0.681	0.524 0.687 0.653	0.260 .259 .254	0.252 .254 .158	0.125 0.014 0.024		-0.068 -.075 -.172	-0.191 -.191 -.336 -.382	-0.160 -.160 -.266 -.441		-0.155 -.155 -.139 -.116		-0.155 -.155 -.155 -.065		-0.047 -.047 -.047 -.047		
4.4	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.660 0.634 0.548	0.521 0.450 0.450	0.414 .151 .113	0.045 .048 .015	0.074 -.082 0.002		-0.259 -.319 0.024	-0.413 -.420 -.469	-0.457 -.305 -.355	-0.383 -.285 -.285	-0.144 -.139 -.139	-0.060 -.057 -.077		-0.060 -.059 -.077		-0.047 -.047 -.047	
-8.9	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.641 .641 0.687	0.619 0.675 0.650	0.369 .379 .505 .555	0.339 .342 .357 .450	0.211 .247 .295 .301		0.016 0.100 -0.019	-0.092 -.092 -.146	-0.085 -.085 -.566	-0.290 -.290 -.454	-0.218 -.218 -.221	-0.249 -.249 -.143		-0.249 -.249 -.127		-0.075 -.075 -.075	
8.9	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.630 0.578 0.442	0.489 0.312 -0.234	0.349 .122 .071	0.484 -.253 -.258	0.044 -.357 -.092		-0.343 -.419 -.252	-0.522 -.507 -.255	-0.098 -.412 -.266	-0.304 -.412 -.297	-0.210 -.123 -.218	-0.116 -.134 -.127		-0.116 -.134 -.077		-0.077 -.077 -.077	

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

$$(n) \quad M = 1.02; \quad \alpha = 5.2^\circ$$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.362 .362 0.600	0.427 0.623 0.623	0.182 .158 .158	0.188 .168 .076	0.078 .076 .076		-0.118 -0.088 -0.088	-0.274 -.200 -.200	-0.282 -.282 -.282	-0.274 -.271 -.271	-0.112 -.112 -.112	-0.096 -.096 -.096				
-4.4	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.506 .506 0.634	0.515 0.637 0.610	0.277 .258 .258	0.258 .245 .245	0.146 .148 .148		-0.055 -0.008 -0.049	-0.209 -.232 -.279	-0.242 -.242 -.242	-0.209 -.241 -.241	-0.198 -.198 -.198	-0.169 -.169 -.169				
4.4	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.605 0.588 0.148	0.434 0.398 .302	0.328 0.161 .102	-0.004 -.092 .009	-0.025 -.174 -.008	-0.351 -.473 -.473	-0.490 -.506 -.506	-0.525 -.525 -.525	-0.386 -.349 -.349	-0.151 -.090 -.090	-0.094 -.080 -.080	-0.117 -.137 -.137				
-8.9	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.611 .611 0.613	0.588 0.614 0.571	0.376 .362 .362	0.343 .330 .330	0.228 .233 .233		0.028 0.068 -0.104	-0.131 -.344 -.263	-0.171 -.191 -.180	-0.171 -.191 -.171	-0.249 -.249 -.249	-0.249 -.249 -.249				
8.9	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.570 0.530 0.427	0.404 0.269 -0.135	0.259 -0.101 .173	-0.031 -.217 -.077	-0.218 -.152 -.101	-0.420 -.431 -.431	-0.596 -.526 -.594	-0.631 -.551 -.594	-0.490 -.373 -.347	-0.238 -.115 -.141	-0.130 -.115 -.141	-0.091 -.141 -.091				

TABLE II--Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(o) $M = 1.02; \alpha = 10.3^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.364 .364 0.543	0.398		0.182 .147	0.167 .157	0.079 .069			-0.105 -.291	-0.291 -.291	-0.363 -.363			-0.128 -.005		
-4.4	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.491 .491 0.560	0.477		0.267 .242	0.240 .234	0.151 .144			-0.039 -.225	-0.225 -.225	-0.315 -.315			-0.173 -.064		
4.4	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.527 0.534 0.488		0.335 0.338	0.239 0.164		-0.127 -.069			-0.556 -.431	-0.556 -.583	-0.365 -.578	-0.199 -.365	-0.138 -.187	-0.067 -.149		
-8.8	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.565 .565 0.516	0.524		0.356 .327	0.319 .303	0.224 .211			0.025 -.150	-0.150 -.150	-0.297 -.297			-0.233 -.085		
8.8	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.489 0.478 0.401	0.303 0.216 -0.084	0.174 -.068 -.073	-0.145 -.242		-0.626 -.717			-0.495 -.420	-0.495 -.551	-0.435 -.554	-0.262 -.364	-0.156 -.132	-0.092 -.161		

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(p) $M = 1.08$; $\alpha = 0^\circ$

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(g) $M = 1.08$; $\alpha = 5.2^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -														
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.397 .397 0.635	0.462 0.654	0.218 .195 .215	0.235 .129	0.131 0.290 .240		-0.060 -0.026 -.126	-0.214 -.313 -.368	-0.242 -.222 -.282		-0.060 -.242 -0.084		-0.060	0.019	
-4.4	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.545 .545 0.673	0.557 0.672	0.316 .301 .295	0.306 .208	0.201 0.286 .224		0.010 0.051 -.042	-0.145 -.251 -.335	-0.194 -.191 -.292		-0.130 -.194 -0.170		-0.006 -.130		
4.4	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.634 0.568	0.471 0.622	0.372 0.438 0.183	0.048 0.272 .085 .036	0.028 0.028 0.028		-0.278 -.106 -.106	-0.406 -.390 -.390	-0.444 -0.427 -0.427	-0.354 -.295 -.295	-0.123 -.055 -.055	-0.051 -.054 -.054	-0.014 -.076		
-8.8	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.648 .648 0.654	0.626 0.651	0.414 .633 0.575	0.387 .383 .383	0.280 .288 .288		0.085 0.133 0.041	-0.065 -.181 -.282	-0.118 -.135 -.311	-0.265 -.265 -.265	-0.200 -.200 -.200				
8.8	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.606 0.477	0.445 0.570	0.308 0.308 -0.137	0.023 0.197 -.197	0.023 -.266 -.266		-0.358 -.350 -.447	-0.525 -.476 -.476	-0.551 -.323 -.323	-0.439 -.074 -.074	-0.205 -.068 -.068	-0.068 -.016 -.016			

TABLE II.—Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

$$(r) \quad M = 1.08; \alpha = 10.5^\circ$$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.410 .410 0.587	0.447		0.231 .198 0.600	0.224 .216 .267	0.144 .136 .182		-0.035 -0.036 -0.150	-0.202 -.202 -.322	-0.285 .285 .268		-0.077 -.077 -0.130	-0.062 -.077 -.077			
-4.3	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 05.0 00.0	0.539 .539 0.604	0.528		0.319 .296 0.606	0.299 .297	0.219 .215 .278		0.035 0.042 -0.070	-0.142 -.142 -.361	-0.230 .230 .253		-0.120 -.120 -.256	0.018 -.120 -.120			
4.3	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.571 0.581 0.538		0.383	0.299	-0.048 0.007	-0.333 -0.484	-0.450 -0.480	-0.142 -0.305	-0.147 -.137	-0.088 -.091			0.016 -.091			
-8.8	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.614 .614 0.566	0.577	0.407 .382 0.589	0.378 .363	0.290 .279		0.099 -0.077	-0.077 -0.077	-0.176 .176		-0.136 -.136					
8.8	00.0 03.0 07.0 10.0 15.0 30.0 45.0 57.5 P.L.	0.534 0.525 0.450		0.351 0.253 0.253	0.224 -.017 -.017	-0.078 -.0214 -.010	-0.423 -.475	-0.548 -0.576	-0.348 -0.472	-0.192 -.111	-0.298 -.287	-0.063 -.334	-0.084 -.230	-0.102 -.086			

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(s) $M = 1.13$; $\alpha = 0^\circ$

TABLE II.- Continued

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

(t) $M = 1.13; \alpha = 5.2^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -																
		0.000	0.001	0.004	0.006	0.017	0.046	0.092	0.164	0.216	0.240	0.260	0.311	0.356	0.440	0.600	0.828	0.988
0	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.396 .396 0.640	0.446		0.222 .191 .235	0.255 .167		0.162			-0.023 -.184	-0.184	-0.222		-0.059	0.018		
				0.665	.528	0.384	.283 .405	.200 .255	.152		0.015 -.103	-.304	-.353 -.277	-.270 -.204	-.204			
											.211			-0.099	-.059			
												.188 -.327	-.316 -.360	-.274 -.274	-.083 -.089	-.028 -.017	.018	
-4.4	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.555 .555 0.682	0.555		0.318 .302 .312	0.324 .234	0.225				0.043 -.121	-0.121	-0.179		-0.137	-0.006		
				0.679	.608	0.510	.402 .484	.301 .373	.251		0.083 -.011	-.216 -.267	-.181 -.309	-.288 -.187	-.187	-.137		
											.277							
												.166 -.337	-.410 -.322	-.322 -.136	-.062 -.123	-.060 -.060	-.006	
												0.028 -.365						
4.4	00.0 03.0 07.0 10.0 15.0 20.0 45.0 57.5 P.L.	0.657 0.635 0.582	0.651		0.484 0.584			0.063 0.051			0.043 -.242	-0.377 -.431	-0.401	-0.320	-0.135 -.115	-0.062 -.088	-0.015	
					0.434	0.181	.287 .157	.088 .043	-.012		-.210 -.066	-.546 -.334	-.385 -.233	-.287 -.291	-.058 -.051	-.044 -.044	-.015	
-8.9	P.L. 57.5 45.0 30.0 15.0 10.0 07.0 03.0 00.0	0.665 .665 0.663	0.659		0.422 .413 .400	0.405 .318	0.305				0.111 -.038	-0.038 -.107	-0.107		-0.229	-0.040		
				0.661	.643	0.588	.518 .520	.405 .458	.346		0.170 -.079	-.144 -.227	-.118 -.250	-.292 -.279	-.279	-.229		
											.296							
												-.147 -.008	-.379 -.488	-.527 -.491	-.491 -.230	-.230 -.206	-.103 -.098	-.040
8.9	00.0 03.0 07.0 10.0 15.0 20.0 30.0 45.0 57.5 P.L.	0.588 -0.150 -0.150	0.624		0.466 0.339			0.047 -0.112			0.047 -.310	-0.467 -.558	-0.543 -0.412	-0.223 -.206	-0.106 -.118	-0.050		
					0.305	-0.137	.148 .004	-.173 -.128	-.249		-.326 -.148	-.399 -.368	-.425 -.368	-.316 -.249	-.082 -.271	-.118		

CONTINUE

TABLE II.- Concluded

PRESSURE COEFFICIENTS FOR LARGE FLAT-WINDSHIELD CANOPY 1

$$(u) \quad M = 1.13; \alpha = 10.5^\circ$$

TABLE III

(a) $M = 0.80$; $\alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -																
		0.008	0.044	0.076	0.124	0.140	0.164	0.212	0.244	0.260	0.295	0.311	0.324	0.345	0.356	0.440	0.600	0.828
0	P.L. 57.5 51.0 48.0 45.0 41.0 34.0 30.0 15.0 03.0 01.0 00.0	0.426	0.341	0.308	0.269	0.225	0.145 .145 .189	-0.050 .005 .009	-0.136	-0.237	-0.183 -.183	-0.110	-0.026	-0.058	0.052			
-4.3	P.L. 57.5 51.0 48.0 45.0 41.0 34.0 30.0 15.0 03.0 01.0 00.0	0.567	0.447	0.423	0.382	0.342	0.261 .261 .302	0.081 .121 .135	-0.037	-0.142	-0.110 -.110	-0.090	-0.059	-0.091	0.022			
4.3	00.0 01.0 03.0 15.0 30.0 34.0 41.0 45.0 48.0 51.0 57.5 P.L.	0.224	0.269	0.270	0.247 .216	0.214 .173	0.068 .051	0.031 .042	-0.239 .193 .692 -1.011	-0.385 -.193 -1.208 -1.168	-0.667 -.805 -.492 -.494	-0.153 -.146 -.124 -.127	-0.088 -.051 -.012	-0.099 -.027 -.010	0.050			
-8.6	P.L. 57.5 51.0 48.0 45.0 41.0 34.0 30.0 15.0 03.0 01.0 00.0	0.596	0.535	0.506	0.457	0.419	0.354 .354 .365	0.176 .215 .233	0.053	-0.060	-0.049 -.049	-0.071	-0.044	-0.145	-0.002			
8.6	00.0 01.0 03.0 15.0 30.0 34.0 41.0 45.0 48.0 51.0 57.5 P.L.	-0.131	-0.165	-0.397	-0.186	-0.321 .045 .041	-0.301 -0.321 .072 -.049	-0.260 -.058	-0.357 -0.245 -.739	-0.465 -.245 -1.356	-0.653 -.856 -.670	-0.252 -.152 -.127	-0.065 -.074 -.010	-0.205 -0.061				

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(b) $M = 0.80$; $\alpha = 5.1^\circ$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(c) M = 0.80; \alpha = 10.2^\circ$$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(d) M = 0.90; \alpha = 0^\circ$$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(e) M = 0.90; \alpha = 5.1^\circ$$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(f) M = 0.90; \alpha = 10.2^\circ$$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(g) $M = 0.95$; $\alpha = 0^\circ$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(h) $M = 0.95$; $\alpha = 5.1^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -																	
		0.008	0.044	0.076	0.124	0.140	0.164	0.212	0.244	0.260	0.295	0.311	0.324	0.345	0.356	0.440	0.600	0.828	0.988
0.5	P.L.	0.393	0.410	0.332	0.319	0.290	0.236	0.079	-0.032	-0.193	-0.197	-0.428	-0.116	-0.031	0.043				
	57.5						.236	.276	.112		-1.197								
	51.0						.276	.121											
	48.0																		
	45.0																		
	41.0																		
	34.0																		
	30.0																		
	15.0																		
	03.0																		
	01.0																		
	00.0																		
-3.8	P.L.	0.510	0.501	0.426	0.401	0.372	0.322	0.165	0.043	-0.106	-0.115	-0.363	-0.244	-0.084	0.021				
	57.5						.322	.352	.199		-1.115								
	51.0						.352	.209											
	48.0																		
	45.0																		
	41.0																		
	34.0																		
	30.0																		
	15.0																		
	03.0																		
	01.0																		
	00.0																		
4.9	P.L.	0.199	0.299	0.231	0.175	0.196	0.018		-0.004	-0.222	-0.323	-0.609	-0.661	-1.101	-0.061	-0.001			
	02.0					.298	.230	.197	.088		.074	-0.875	-0.992	-0.604	-0.053	-0.018			
	03.0					.213		.10.			.429	-0.869	-0.653	-0.607	-0.069				
	15.0										.731								
	34.0																		
	41.0																		
	45.0																		
	48.0																		
	51.0																		
	57.5																		
	P.L.	0.199	0.298	0.213	0.215	0.190	0.147	-0.008	-0.056	-0.269	-0.280	-0.280	-0.494	-0.069	-0.018	-0.001			
-8.3	P.L.	0.563	0.558	0.491	0.457	0.428	0.388	0.229	0.104	-0.051	-0.077	-0.328	-0.199	-0.117	0.006				
	57.5						.388	.260											
	51.0						.412	.271											
	48.0																		
	45.0																		
	41.0																		
	34.0																		
	30.0																		
	15.0																		
	03.0																		
	01.0																		
	00.0																		
9.3	P.L.	-0.150	-0.257	-0.418	-0.213	-0.125	-0.262	-0.241	-0.199	-0.323	-0.393	-0.654	-0.639	-1.251	-0.073	-0.007			
	01.0						.120	.067	.090	.003	.042	-0.984	-0.879	-0.995	-0.801	-0.082	-0.079		
	05.0																		
	25.0																		
	30.0																		
	34.0																		
	41.0																		
	45.0																		
	48.0																		
	51.0																		
	57.5																		
	P.L.	-.150	.120	.067	.080	0.067	.040	-.105	-.162	-.345	-.360	-.554	-.063	-.079	-.007				

TABLE III.—Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(1) \quad M = 0.95; \alpha = 10.5^\circ$$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(j) $M = 0.99$; $\alpha = 0^\circ$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(k) M = 0.99; \alpha = 5.2^\circ$$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(i) $M = 0.99$; $\alpha = 10.3^\circ$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(m) $M = 1.02$; $\alpha = 0^\circ$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(n) M = 1.02; \alpha = 5.2^\circ$$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(o) \quad M = 1.02; \alpha = 10.5^\circ$$

β , deg	ϕ , deg	Pressure coefficients for x/l of -																	
		0.008	0.044	0.076	0.124	0.140	0.164	0.212	0.244	0.260	0.295	0.311	0.324	0.345	0.356	0.440	0.600	0.828	0.988
0.4	P.L. 51.0 48.0 45.0 41.0 38.0 30.0 15.0 03.0 01.0 00.0	0.416 0.369 .379 0.376 0.376 0.369 0.365 0.365 0.346 0.346 0.311 0.311 0.181	0.332 0.355 0.210 .211 0.163 .241 .312 .311 .180 0.260 0.295 0.311 0.324 0.345 0.356 0.440 0.600 0.828 0.988	0.185 0.210 .211 0.163 .241 .201 .180 -0.230 -0.285 0.096 0.138 -0.382 -0.257 .022 -0.285 -0.085 -.186 -0.510 -0.703 -0.703 -0.364 -.887 -.445 -.525 -.537 -0.157 -0.056 -.152 -.074	-0.101 -0.321 -0.264 -0.129 0.028														
-3.9	P.L. 57.5 51.0 48.0 45.0 41.0 38.0 30.0 15.0 03.0 01.0 00.0	0.497 0.455 0.453 0.433 0.433 0.455 0.453 0.428 0.409 0.409	0.396 0.396 .409 .277 .279 0.252 .303 .374 .362 .195	0.263 0.277 0.162 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195	0.162 0.195 0.078 -0.265 0.252 0.195 0.224 -0.331 -0.677 -0.247 -0.381 -0.295 -0.557 -0.485 -0.219 -0.155 -0.149	-0.011 -0.026 -0.265 -0.295 -0.164 -0.035													
4.8	00.0 01.0 03.0 15.0 30.0 38.0 41.0 45.0 48.0 51.0 57.5 P.L.	0.221 0.253 0.246 0.205 0.195 0.242 0.271 0.296 0.273 0.249 0.249	0.190 0.190 0.190 0.168 0.097 0.132 0.129 0.112	0.190 0.190 0.190 0.168 0.190 0.190 0.190 0.190 0.190 0.190 0.190 0.190 0.190 0.190 0.190 0.190 0.190 0.190 0.190	0.067 0.157 -0.220 -0.298 -0.107 -0.117 -0.314 -0.604 -0.714 -0.539 -0.580 -0.187 -0.168 -0.061	-0.213 -0.147													
-7.2	P.L. 57.5 51.0 48.0 45.0 41.0 38.0 30.0 15.0 03.0 01.0 00.0	0.574 0.515 0.507 0.483 0.450 0.450 0.460 0.460 0.460 0.460 0.460 0.460 0.460 0.460 0.460 0.460 0.460 0.460 0.460 0.460	0.518 0.518 .326 .328 0.483 0.507 0.463 0.405 0.357 0.357 0.186	0.217 0.217 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278 0.278	0.039 0.039 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023 -0.023	0.011 0.011 -0.226 -0.287 -0.178 -0.040													
8.1	00.0 01.0 03.0 15.0 30.0 38.0 41.0 45.0 48.0 51.0 P.L.	-0.006 -0.091 -0.193 -0.071 -0.097 -0.140 0.163 0.171 0.209 0.054 0.058 0.206 0.171 0.031	0.171 0.171 0.122 0.122 0.101 0.026 0.026 0.026 0.026 0.026	-0.093 -0.093 -0.264 -0.323 -0.323 -0.725 -0.725 -0.725 -0.725 -0.725 -0.725 -0.725 -0.725 -0.725 -0.725 -0.725 -0.725 -0.725 -0.725	-0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563 -0.563	-0.281 -0.161													

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(p) $M = 1.08$; $\alpha = 0^\circ$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(q) $M = 1.08; \alpha = 5.2^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/t of -																	
		0.008	0.044	0.076	0.124	0.140	0.164	0.212	0.244	0.260	0.295	0.311	0.324	0.345	0.356	0.440	0.600	0.828	0.988
0.5	P.L.	0.486	0.489	0.431	0.428	0.403	0.359	0.212	0.118	-0.038	-0.054	-0.243	-0.130	-0.067	0.038				
	57.5						.559												
	51.0						.398	.248											
	48.0						.254												
	45.0																		
	41.0																		
	34.0																		
	30.0																		
	15.0																		
	05.0																		
	01.0																		
	00.0																		
-4.1	P.L.	0.593	0.579	0.523	0.503	0.481	0.438	0.295	0.183	0.056	0.032	-0.175	-0.125	-0.136	0.013				
	57.5						.438												
	51.0						.468	.330											
	48.0						.338												
	45.0																		
	41.0																		
	34.0																		
	30.0																		
	15.0																		
	03.0																		
	01.0																		
	00.0																		
4.7	P.L.	0.512	0.414	0.352	0.301		0.310	0.162		0.156	-0.056	-0.145	-0.591	-0.389	-0.458	-0.153	-0.094	-0.010	
	57.5		.388				.322		.256		.105								
	51.0																		
	48.0																		
	45.0																		
	41.0																		
	34.0																		
	30.0																		
	15.0																		
	03.0																		
	01.0																		
	00.0																		
-8.5	P.L.	0.658	0.663	0.609	0.576	0.557	0.522	0.380	0.258	0.121	0.099	-0.120	-0.104	-0.180	0.018				
	57.5						.522												
	51.0						.544	.410											
	48.0						.418												
	45.0																		
	41.0																		
	34.0																		
	30.0																		
	15.0																		
	03.0																		
	01.0																		
	00.0																		
9.2	P.L.	0.658	.663	0.609	0.576	0.557	0.522	0.380	0.258	0.121	0.099	-0.120	-0.104	-0.180	0.018				
	57.5																		
	51.0																		
	48.0																		
	45.0																		
	41.0																		
	34.0																		
	30.0																		
	15.0																		
	03.0																		
	01.0																		
	00.0																		

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TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(r) $M = 1.08$; $\alpha = 10.3^\circ$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(5) \quad M \approx 1.15; \alpha = 0^\circ$$

TABLE III.- Continued

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

(t) $M = 1.13$; $\alpha = 5.2^\circ$

TABLE III.- Concluded

PRESSURE COEFFICIENTS FOR LARGE VEE-WINDSHIELD CANOPY 2

$$(u) \quad M = 1.13; \alpha = 10.3^{\circ}$$

TABLE IV

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(a) $M = 0.80$; $\alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869	0.993	
0	P.L.	0.150		0.106	0.045		-0.066	-0.135	-0.092	-0.106	-0.045	-0.012	-0.023	-0.057	-0.029		
	80.0	.150		.111	.062		-.066	-.214	-.103		-.045						
	60.0	-.233		.178	.118		-.012	-.245	-.128	-.092		-.012					
	40.0	.327		.143	.116		.042	-.213	-.155		-.021		-.023				
	32.0			.212													
	23.0				.255												
	20.0					0.431	.267	0.100	.016	-.225	-.193	-.112		-.001		-.057	
	11.0								.042								
	00.0								0.460	.240	.065	-.208	-.204	-.089	-.019	-.029	-.029
-4.2	P.L.	0.243		0.187	0.125		0.008	-0.077	-0.079	-0.111	-0.074	-0.032	-0.027	-0.071	-0.044		
	80.0	.243		.204	.158		.037	-.140	-.090		-.074						
	60.0	-.089		.272	.209		.081	-.156	-.120	-.124		-.032					
	40.0	.262		.258	.197		.115	-.149	-.158		-.057		-.027				
	32.0			.268													
	23.0				.290												
	20.0					0.409	.277	0.125	.078	-.206	-.212	-.147		-.036		-.071	
	11.0								.069								
	00.0								0.407	.220	.048	-.239	-.236	-.122	-.048	-.055	-.044
4.2	00.0			0.448	0.232		0.045	-0.225	-0.227	-0.113	-0.044		-0.049		-0.040		
	11.0						-.027										
	20.0							-.107	-.287	-.223	-.131		-0.015		-0.072		
	23.0																
	32.0																
	32.0																
	40.0																
	0.339																
	40.0																
	60.0	-.075		.000													
	60.0	-.428		.053	-.010												
	80.0	.014		.012	-.046												
	P.L.	.014		.014	-.040												
-8.5	P.L.	0.348		0.267	0.207		0.088	-0.015	-0.061	-0.127	-0.115	-0.091	-0.096	-0.138	-0.085		
	80.0	.348		.286	.247		.131	-.064	-.078		-.115						
	60.0	.027		.343	.280		.161	-.086	-.131	-.183		-.091					
	40.0	.126		.302	.247		.151	-.120	-.204		-.139		-.096				
	32.0			.265													
	23.0				.277												
	20.0					0.358	.251	0.104	.074	-.226	-.282	-.237		-.116		-.138	
	11.0							.046									
	00.0								0.354	.170	-.004	-.314	-.324	-.208	-.131	-.110	-.085
8.5	00.0			0.405	0.199		-0.002	-0.275	-0.302	-0.186	-0.121		-0.102		-0.078		
	11.0							-.143									
	20.0								-.303	-.386	-.297	-.194		-0.057		-0.110	
	23.0																
	32.0																
	40.0																
	60.0	0.324		-.382	-.151		-.211	-.458	-.255		-.048						
	60.0	-.660		-.094	-.145		-.270	-.486	-.188	-.094		-.045					
	80.0	-.239		-.102	-.160		-.299	-.338	-.151		-.092						
	P.L.	-.239		-.087	-.135		-.239	-.274	-.156	-.197	-.092	-.045	-.063	-.110	-.078		

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

$$(b) M = 0.80; \alpha = 5.1^\circ$$

β , deg	ϕ , deg	Pressure coefficients for x/l of -														
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869	0.993
0	P.L.	0.128		0.036		-0.079	-0.160	-0.139	-0.147	-0.084	-0.041	-0.040	-0.064	-0.051		
	80.0	.128		0.106	.066	-.056	-.219	-.146		-.084						
	60.0	-.255		.153	.098	-.019	-.253	-.166	-.138		-.041					
	40.0	.230		.116	.076	.001	-.251	-.191		-.047						
	32.0			.147												
	25.0															
	20.0															
	11.0															
	00.0															
-4.2	P.L.	0.221		0.105		-0.013	-0.113	-0.138	-0.173	-0.131	-0.080	-0.060	-0.083	-0.055		
	80.0	.221		0.178	.160	.023	-.163	-.146		-.131						
	60.0	-.141		.226	.169	.054	-.195	-.180	-.187		-.080					
	40.0	.119		.197	.159	.053	-.213	-.217		-.096						
	32.0			.188												
	25.0															
	20.0															
	11.0															
	00.0															
4.2	P.L.	0.361		0.153		-0.016	-0.295	-0.255	-0.126	-0.055		-0.064		-0.048		
	80.0															
	11.0															
	20.0															
	25.0															
	32.0															
	32.0															
	40.0															
	60.0															
	80.0															
	P.L.	.020														
-8.5	P.L.	0.302		0.183		0.063	-0.051	-0.118	-0.198	-0.191	-0.138	-0.116	-0.114	-0.077		
	80.0	.302		0.245	.217	.104	-.102	-.149		-.191						
	60.0	-.031		.279	.225	.114	-.152	-.226	-.280		-.138					
	40.0	-.042		.210	.165	.067	-.209	-.296		-.199						
	32.0			.170												
	25.0															
	20.0															
	11.0															
	00.0															
8.5	P.L.	0.316		0.108		-0.075	-0.360	-0.345	-0.211	-0.136		-0.102		-0.070		
	80.0															
	11.0															
	20.0															
	25.0															
	32.0															
	40.0															
	60.0															
	80.0															
	P.L.	-.203		-.132		-.234	-.270	-.152	-.153	-.132	-.075	-.093	-.106	-.070		

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(c) $M = 0.80$; $\alpha = 10.2^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869	0.993	
0.4	P.L.	0.121		0.070	0.025		-0.089	-0.181	-0.189	-0.199	-0.131	-0.067	-0.055	-0.063	-0.007		
	80.0	.121		.068	.071		-.054	-.235	-.193	-.209	-.131						
	60.0	-.189		.121	.097		-.045	-.266	-.216	-.186		-.067					
	40.0	.105		.101	.069		-.044	-.292	-.229		-.068		-.055				
	32.0			.097													
	25.0				.114												
	20.0					0.264	.118	-.048	-.106	-.344	-.246	-.132		-.039	-.063		
	11.0								-.104								
	00.0									0.267	.080	-.081	-.347	-.246	-.110	-.034	
														-.056	-.007		
-3.8	P.L.	0.198		0.124	0.082		-0.036	-0.139	-0.185	-0.233	-0.188	-0.099	-0.065	-0.083	-0.032		
	80.0	.198		.139	.127		.005	-.196	-.209		-.188						
	60.0	-.155		.174	.146		.002	-.234	-.252	-.254		-.099					
	40.0	-.035		.144	.104		-.011	-.279	-.276		-.120		-.065				
	32.0			.119													
	25.0				.128												
	20.0					0.253	.119	-.036	-.078	-.346	-.286	-.175		-.079	-.083		
	11.0								-.088								
	00.0									0.251	.068	-.093	-.370	-.271	-.126	-.050	
														-.099	-.032		
4.7	00.0			0.272	0.071		-0.095	-0.361	-0.270	-0.127	-0.056		-0.098		-0.034		
	11.0					0.283	.088	-.106	-.196	-.376	-.240	-.118		-0.050	-0.093		
	20.0								-.052								
	25.0									.023							
	32.0										-.029	-.006	-.109	-.341	-.206		
	40.0	0.204									.045	.018	-.123	-.321	-.188		
	60.0	-.373									.021	-.006	-.130	-.276	-.179		
	80.0	.036									.008	-.040	-.150	-.223	-.175		
	P.L.																
-8.1	P.L.	0.244		0.189	0.150		0.039	-0.078	-0.169	-0.263	-0.249	-0.151	-0.101	-0.098	-0.039		
	80.0	.244		.194	.191		.072	-.151	-.223		-.249						
	60.0	-.065		.206	.187		.044	-.216	-.317	-.368		-.151					
	40.0	-.190		.131	.099		-.015	-.294	-.375		-.231		-.101				
	32.0			.087													
	25.0				.089												
	20.0					0.199	.088	-.066	-.107	-.391	-.383	-.276		-.108	-.098		
	11.0								-.114								
	00.0									0.227	.024	-.143	-.443	-.346	-.186	-.105	
														-.111	-.039		
8.9	00.0			0.225	0.028		-0.149	-0.426	-0.351	-0.195	-0.113		-0.096		-0.041		
	11.0					0.250	0.022	-.0215	-.385	-.457	-.285	-.146		-0.123	-0.080		
	20.0							-.062									
	25.0								.110								
	32.0									.280	-.130	-.225	-.431	-.219			
	40.0	0.184									.068	-.091	-.230	-.395	-.191	-.080	-.147
	60.0	-.552									.118	-.064	-.088	-.220	-.317	-.184	-.072
	80.0										.118	-.069	-.120	-.221	-.261	-.161	-.135
	P.L.																

CONT'D

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(d) $M = 0.90; \alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -															
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869	0.993	
0	P.L.	0.163		0.126	0.066		-0.065	-0.179	-0.118	-0.115	-0.049	-0.012	-0.032	-0.073	-0.039		
	80.0	.163		.133	.077		-.069	-.288	-.119	-.115	-.049						
	60.0	-.227		.203	.140		.001	-.321	-.131	-.095		-.012					
	40.0	.356		.162	.137		.058	-.252	-.141		-.018		-.032				
	32.0			.232													
	23.0						.278										
	20.0							0.118	.029	-.237	-.162	-.113		-.004	-.073		
	11.0								.063								
	00.0									.086	-.216	-.171	-.092	-.017	-.041	-.039	
-4.3	P.L.	0.260		0.205	0.142		0.012	-0.105	-0.119	-0.129	-0.072	-0.032	-0.033	-0.087	-0.053		
	80.0	.260		.219	.171		.039	-.179	-.127	-.127		-.072					
	60.0	-.092		.293	.229		.090	-.185	-.157	-.131		-.032					
	40.0	.276		.277	.215		.150	-.154	-.196		-.054		-.033				
	32.0			.287													
	23.0						.311										
	20.0							0.141	.092	-.200	-.256	-.146		-.036	-.087		
	11.0								.087								
	00.0									.073	-.226	-.261	-.118	-.043	-.065	-.053	
4.3	00.0			0.477	0.257		0.066	-0.243	-0.332	-0.120	-0.045		-0.064		-0.049		
	11.0						-.014										
	20.0			0.464	0.246		0.048	-.120	-.312	-.227	-.132		-0.021		-0.092		
	23.0						.194										
	32.0																
	40.0			0.378	-.075		.012		-.397	-.164		-.020		-.046			
	60.0			-.442	.073		.005		-.131	-.489	-.147	-.085		-.015			
	80.0			-.021	.021		-.042		-.191	-.411	-.131	-.056					
	P.L.			-.021	.032		-.026		-.156	-.271	-.133	-.056	-.015	-.046	-.092	-.049	
-8.6	P.L.	0.367		0.285	0.225		0.096	-0.026	-0.098	-0.160	-0.115	-0.089	-0.096	-0.143	-0.087		
	80.0	.367		.307	.263		.139	-.082	-.117	-.115							
	60.0	.028		.366	.303		.177	-.094	-.175	-.188		-.089					
	40.0	.138		.325	.268		.173	-.109	-.258		-.132		-.096				
	32.0			.289													
	23.0						.302										
	20.0							0.125	.097	-.202	-.380	-.219		-.107	-.143		
	11.0								.074								
	00.0									.030	-.283	-.494	-.182	-.112	-.112	-.087	
8.6	00.0			0.438	0.222		0.018	-0.300	-0.566	-0.196	-0.124		-0.116		-0.088		
	11.0						-.126										
	20.0			0.436	0.177		-0.053	-.345	-.405	-.572	-.178		-0.068		-0.135		
	23.0						.082										
	32.0																
	40.0			0.376	-.394		.143		-.259	-.567	-.297		-.051		-.070		
	60.0			-.680	.077		-.131		-.297	-.648	-.238	-.133		-.044			
	80.0			-.363	-.099		-.154		-.356	-.500	-.186		-.213				
	P.L.			-.563	-.074		-.127		-.261	-.379	-.169	-.181	-.213	-.044	-.070	-.133	-.088

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TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

$$(e) M = 0.90; \alpha = 5.1^\circ$$

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

$$(f) \quad M = 0.90; \quad \alpha = 10.2^\circ$$

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(g) $M = 0.95; \alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -														
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869	0.995
0	P.L.	0.193		0.159	0.099		-0.037	-0.162	-0.219	-0.203	-0.031	-0.010	-0.040	-0.112	-0.048	
	80.0	.195		.170	.117		-.053	-.271	-.233		-.031					
	60.0	-.177		.234	.173		.041	-.286	-.278	-.162		-.010				
	40.0	.365		.198	.170		.093	-.219	-.331		.002			-.040		
	32.0			.261												
	23.0			.304												
	20.0	0.494		.312		0.144	.067	-.205	-.436	-.114		-.007		-.112		
	11.0															
	00.0			0.490		.284		.110	-.199	-.509	-.091	.007		-.054		-.048
-4.3	P.L.	0.286		0.235	0.173		0.038	-0.088	-0.160	-0.272	-0.043	-0.026	-0.037	-0.116	-0.059	
	80.0	.286		.250	.204		.068	-.174	-.177		-.043					
	60.0	-.059		.321	.257		.123	-.176	-.229	-.317		-.026				
	40.0	.284		.304	.244		.163	-.145	-.286		-.021			-.037		
	32.0			.314												
	23.0			.340												
	20.0	0.467		.324		0.170	.124	-.174	-.400	-.251		-.050		-.116		
	11.0															
	00.0			0.463		.271		.102	-.204	-.506	-.156	-.012		-.071		-.059
4.3	00.0		0.491		0.281		0.097	-0.213	-0.513	-0.129	-0.007		-0.071		-0.054	
	11.0			0.474		0.273		0.082	-.067	-.266	-.543	-.103		-0.013		-0.123
	20.0															
	23.0															
	32.0															
	40.0	0.405		.161	.057		-.014	-.340	-.418		.005			-.053		
	60.0	-.364		.107	.045		-.083	-.427	-.346	-.090		-.010				
	80.0	.003		.065	.004		-.162	-.388	-.291		-.029					
	P.L.			.067	.011		-.124	-.248	-.294	-.156	-.029	-.010	-.053	-.123	-.054	
-8.7	P.L.	0.397		0.320	0.260		0.127	-0.000	-0.095	-0.251	-0.154	-0.080	-0.100	-0.173	-0.097	
	80.0	.397		.357	.301		.172	-.055	-.108		-.154					
	60.0	.054		.392	.351		.208	-.064	-.179	-.365		-.080				
	40.0	.143		.351	.297		.202	-.075	-.268		-.091			-.100		
	32.0			.319												
	23.0			.335												
	20.0	0.421		.304		0.156	.126	-.156	-.402	-.562		-.092		-.173		
	11.0															
	00.0			0.417		.230		.061	-.244	-.525	-.469	-.064		-.117		-.097
8.7	00.0		0.464		0.251		0.055	-0.270	-0.553	-0.380	-0.061		-0.122		-0.091	
	11.0			0.462		0.208		-.014	-.291	-.360	-.640	-.193		-0.061		-0.158
	20.0															
	23.0															
	32.0															
	40.0	0.393		.011	.096		-.195	-.498	-.639		-.020			-.084		
	60.0	-.593		.039	.086		-.254	-.588	-.421	-.158		-.050				
	80.0	-.355		.057	.110		-.345	-.483	-.356		-.174					
	P.L.	-.355		.043	.090		-.248	-.359	-.366	-.229	-.174	-.050	-.084	-.158	-.091	

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

$$(h) \quad M = 0.95; \quad \alpha = 5.1^\circ$$

β , deg	ϕ , deg	Pressure coefficients for x/l of -													
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869
0	P.L.	0.162		0.083		-0.050	-0.165	-0.258	-0.330	-0.045	-0.037	-0.059	-0.106	-0.038	
	80.0	.162		0.152	.112	.023	-.247	-.274		-.045					
	60.0	-.215		.200	.144	.030	-.278	-.322	-.297		-.037				
	40.0	.245		.161	.125	.055	-.259	-.371		-.010		-.059			
	32.0			.194											
	23.0				.230										
	20.0					0.066	.001	-.270	-.463	-.203		-.023		-.106	
	11.0						.020								
	00.0						.050	-.269	-.525	-.178	.000		-.069		-.038
-4.3	P.L.	0.268		0.155		0.024	-0.101	-0.211	-0.350	-0.116	-0.077	-0.078	-0.130	-0.067	
	80.0	.268		0.228	.192	.063	-.168	-.231		-.116					
	60.0	-.112		.273	.216	.107	-.189	-.294	-.441		-.077				
	40.0	.119		.241	.186	.106	-.197	-.365		-.055		-.078			
	32.0			.234											
	23.0				.256										
	20.0					0.085	.049	-.246	-.465	-.373		-.050		-.130	
	11.0						.045								
	00.0						.036	-.283	-.541	-.249	-.026		-.098		-.067
4.3	P.L.	0.393		.190											
	00.0														
	11.0														
	20.0														
	23.0														
	32.0														
	40.0														
	32.0														
	40.0														
	60.0														
	80.0														
	P.L.														
-8.7	P.L.	0.349		0.234		0.105	-0.028	-0.145	-0.319	-0.407	-0.104	-0.126	-0.146	-0.073	
	80.0	.349		0.295	.269	.146	-.088	-.178		-.407					
	60.0	-.009		.328	.273	.169	-.129	-.273	-.494		-.104				
	40.0	-.039		.259	.213	.125	-.150	-.382		-.164		-.126			
	32.0			.223											
	23.0				.232										
	20.0					0.063	.033	-.240	-.498	-.653		-.076		-.146	
	11.0						.027								
	00.0						.008	-.323	-.598	-.359	-.109		-.141		-.073
8.7	P.L.	0.346		.147											
	00.0														
	11.0														
	20.0														
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	40.0														
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TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(i) $M = 0.95$; $\alpha = 10.2^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -														
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869	0.995
0.4	P.L.	0.160		0.116	0.072		-0.056	-0.167	-0.295	-0.416	-0.129	-0.060	-0.077	-0.093	-0.011	
80.0	.160		.132	.118		.015	-.233	-.320			.129					
60.0	-.165		.166	.146		.001	-.256	-.375	-.437			.060				
40.0	.128		.146	.115		.012	-.279	-.415			.056					
32.0			.142													
23.0				.161												
20.0		0.317		.160		-0.004	-.048	-.311	-.481	-.287		-.035		-.095		
11.0							-.059									
00.0			0.319		.127		-.017	-.327	-.522	-.249	-.033		-.080		-.011	
-3.8	P.L.	0.240		0.173	0.133		0.012	-0.110	-0.248	-0.409	-0.267	-0.075	-0.093	-0.119	-0.036	
80.0	.240		.191	.182		.053	-.181	-.289			.267					
60.0	-.130		.223	.196		.057	-.210	-.369	-.554			.075				
40.0	-.038		.191	.154		.048	-.250	-.443			.117					
32.0			.163													
23.0				.176												
20.0		0.308		.162		0.012	-.019	-.299	-.513	-.396		-.086		-.119		
11.0							-.018									
00.0			0.305		.117		-.025	-.340	-.543	-.285	-.068		-.137		-.036	
4.7	00.0		0.326		0.121		-0.028	-0.351	-0.570	-0.263	-0.055		-0.150		-0.036	
11.0							-.095									
20.0		0.336		0.135		-0.059	-.136	-.353	-.496	-.240		-0.043		-0.116		
23.0					.109											
32.0					.074											
40.0	0.252		.018	.045		-.047	-.348	-.413			.055					
60.0	-.328		.091	.068		-.071	-.340	-.370	-.293			.029				
80.0	.072		.068	.042		-.093	-.300	-.336	-.062							
P.L.	.072		.054	.008		-.119	-.250	-.315	-.357	-.062		-.029	-.049	-.116	-.036	
-8.2	P.L.	0.290		0.231	0.195		0.080	-0.045	-0.206	-0.368	-0.570	-0.106	-0.121	-0.131	-0.048	
80.0	.290		.240	.259		.116	-.125	-.258			.570					
60.0	-.042		.253	.234		.097	-.194	-.371	-.616			.106				
40.0	-.179		.177	.151		.047	-.288	-.485			.231					
32.0			.131													
23.0				.135												
20.0		0.255		.132		-0.020	-.051	-.328	-.577	-.615		.121		.131		
11.0							-.044									
00.0			0.284		.077		-.064	-.392	-.630	-.353	-.186		.109		.048	
9.1	00.0		0.282		0.079		-0.086	-0.446	-0.682	-0.354	-0.186		-0.113		-0.053	
11.0							-.239									
20.0		0.308		0.069		-0.168	-.395	-.458	-.647	-.281		-0.246		-0.113		
23.0					-.001											
32.0					.064											
40.0		0.258		-.245	-.086		-.209	-.480	-.464		.130					
60.0		-.498		-.026	-.042		-.225	-.461	-.404	-.268		.001		.107		
80.0		-.160		-.024	-.044		-.227	-.379	-.383	-.069						
P.L.		-.160		-.027	-.076		-.219	-.298	-.360	-.295	-.069		-.001	-.107	-.113	-.053

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(J) $M = 0.99; \alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -													
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869
0	P.L.	0.193		0.174	0.117		-0.016	-0.142	-0.207	-0.272	-0.107	-0.019	-0.052	-0.129	-0.130
80.0		.193		.178	.127		-.021	-.269	-.222	-.107					
60.0		-.194		.251	.193		.060	-.283	-.274	-.257		-.019			
40.0		.406		.203	.181		.113	-.209	-.324		-.074		-.052		
32.0				.281											
23.0					.350										
20.0		0.526		.358		0.170	.081	-.173	-.434	-.289		-.017		-.129	
11.0							.123								
00.0				0.523		.319		.150	-.152	-.479	-.263	-.072		-.063	-.130
-4.3	P.L.	0.308		0.257	0.198		0.065	-0.060	-0.140	-0.253	-0.193	-0.040	-0.046	-0.135	-0.148
80.0		.308		.273	.228		.093	-.148	-.157						
60.0		-.037		.346	.285		.154	-.153	-.208	-.304		-.040			
40.0		.311		.328	.269		.192	-.118	-.261		-.138		-.046		
32.0				.337											
23.0					.367										
20.0		0.498		.351		0.199	.155	-.134	-.371	-.379		-.043		-.135	
11.0							.153								
00.0				0.493		.304		.141	-.158	-.469	-.323	-.099		-.081	-.148
4.3	00.0			0.519		0.313		0.132	-0.170	-0.477	-0.318	-0.105		-0.083	-0.141
11.0							.056								
20.0		0.499		0.298		0.109		-.057	-.235	-.535	-.305		-0.034		-0.152
32.0					.257										
23.0				.182											
40.0		0.437		-.014	.078		-.009	-.325	-.438		-.073		-.064		
60.0				.130	.073		-.073	-.416	-.347	-.229		-.028			
80.0				-.018	.080		-.177	-.371	-.279		-.108				
P.L.				.090	.059		-.111	-.220	-.280	-.290	-.108	-.028	-.064	-.152	-.141
-8.7	P.L.	0.411		0.354	0.275		0.145	0.017	-0.081	-0.226	-0.286	-0.085	-0.102	-0.188	-0.192
80.0		.411		.353	.313		.187	-.047	-.098						
60.0		.062		.416	.355		.230	-.050	-.160	-.324		-.085			
40.0		.180		.373	.320		.232	-.055	-.239		-.350		-.102		
32.0				.340											
23.0					.361										
20.0		0.455		.335		0.186	.161	-.123	-.365	-.486		-.093		-.188	
11.0							.143								
00.0				0.452		.267		.105	-.201	-.479	-.516	-.177		-.122	-.192
8.7	00.0			0.493		0.285		0.096	-0.235	-0.517	-0.531	-0.204		-0.151	-0.191
11.0							.049								
20.0		0.491		0.239		0.029		-.284	-.323	-.607	-.405		-0.090		-0.198
32.0					.156										
23.0				.047											
40.0		0.433		-.320	-.062		-.173	-.481	-.652		-.130		-.102		
60.0		-.639		-.008	-.053		-.235	-.564	-.450	-.261		-.072			
80.0		-.384		-.033	-.074		-.324	-.447	-.344		-.284				
P.L.				-.384	-.009		-.045	-.211	-.318	-.355	-.354	-.284	-.072	-.102	-.198

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(k) $M = 0.99$; $\alpha = 5.1^\circ$

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(2) $M = 0.99$; $\alpha \approx 10.3^\circ$

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TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(m) $M = 1.02$; $\alpha = 0^\circ$

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(n) $M = 1.02; \alpha = 5.1^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -													
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869
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0	P.L.	0.222		0.157		0.028	-0.084	-0.180	-0.272	-0.171	-0.052	-0.061	-0.127	-0.124	
80.0	.222		0.220	.185	.056	-.164	-.193	-.171							
60.0	-.140		.268	.214	.128	-.189	-.241	-.299							
40.0	.295		.229	.194	.142	-.168	-.290								
32.0			.261												
23.0			.298												
20.0		0.466		.297		0.137	.086	-.176	-.381	-.277					
11.0							.106								
00.0			0.490				.131	-.177	-.446	-.243	-.096				
<hr/>															
-4.3	P.L.	0.326		0.224		0.094	-0.025	-0.133	-0.263	-0.293	-0.093	-0.076	-0.152	-0.154	
80.0	.326		0.291	.258	.131	-.090	-.149								
60.0	-.049		.355	.281	.191	-.108	-.208	-.361							
40.0	.169		.304	.252	.181	-.114	-.277								
32.0			.298												
23.0			.321												
20.0			0.450		.301		0.156	.128	-.154	-.376	-.385				
11.0								.128							
00.0			0.453					.118	-.188	-.460	-.307	-.123			
<hr/>															
4.3	00.0		0.470		0.268		0.120	-0.196	-0.470	-0.274	-0.118		-0.093	-0.148	
11.0			0.472		0.264		0.080	-.040	-.036	-.228	-.473	-.258			
20.0													-0.049	-0.148	
23.0								.232							
32.0															
40.0								.174							
50.0															
60.0															
80.0															
P.L.															
<hr/>															
-8.7	P.L.	0.407		0.298		0.174	0.046	-0.077	-0.233	-0.374	-0.128	-0.113	-0.175	-0.170	
80.0	.407		0.357	.332	.212	-.018	-.105								
60.0	.053		.388	.336	.244	-.066	-.191								
40.0	.016		.321	.278	.198	-.115	-.294								
32.0			.286												
23.0			.297												
20.0			0.403		.277		0.134	.107	-.167	-.403	-.556				
11.0								.104							
00.0			0.409					.072	-.241	-.496	-.507	-.191			
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8.7	00.0		0.439		0.234		0.079	-0.279	-0.529	-0.485	-0.191		-0.130	-0.165	
11.0			0.448		0.203		-0.014	-.078	-.274	-.325	-.582	-.310			
20.0													-0.094	-0.165	
23.0															
32.0															
40.0															
50.0															
60.0															
80.0															
P.L.															

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TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(o) $M = 1.02; \alpha = 10.3^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -													
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869
0.4	P.L.	0.210		0.176	0.139		0.014	-0.092	-0.208	-0.324	-0.217	-0.086	-0.083	-0.122	-0.088
80.0		.210		.185	.181		.051	-.164	-.229	-.217					
60.0		-.100		.223	.209		.076	-.191	-.282	-.343		-.086			
40.0		.212		.207	.175		.096	-.206	-.323		-.142		-.083		
32.0				.210											
25.0					.232										
20.0		0.381		.226		0.071	.041	-.226	-.392	-.259		-.053		-.122	
11.0							.056								
00.0		0.384		.198			.077	-.235	-.435	-.233	-.111		-.076		-.088
-3.9	P.L.	0.298		0.237	0.203		0.084	-0.025	-0.168	-0.315	-0.405	-0.119	-0.106	-0.153	-0.122
80.0		.298		.254	.249		.124	-.097	-.207	-.405					
60.0		-.066		.283	.261		.131	-.137	-.279	-.466		-.119			
40.0		.009		.254	.218		.123	-.177	-.355		-.248		-.106		
32.0				.226											
25.0					.238										
20.0		0.367		.224		0.078	.058	-.216	-.427	-.398		-.125		-.155	
11.0							.060								
00.0		0.366		.182			.056	-.251	-.464	-.285	-.147		-.148		-.122
4.8	00.0		0.385	0.188		0.041	-0.266	-0.499	-0.277	-0.146		-.165		-0.129	
11.0			0.397	0.197		0.007	-.086	-.275	-.435	-.252		-.081		-0.178	
20.0					.175										
23.0															
32.0															
40.0	0.320		.074	.107		-.001	-.279	-.339		-.121			-.064		
60.0		-.281		.151	.133		-.030	-.275	-.297	-.270		-.063			
80.0		.121		.127	.104		-.055	-.238	-.262		-.154				
P.L.		.121		.115	.075		-.067	-.156	-.245	-.299	-.154	-.063	-.064	-.178	-.129
-8.2	P.L.	0.345		0.286	0.250		0.143	0.032	-0.139	-0.291	-0.452	-0.146	-0.139	-0.159	-0.136
80.0		.345		.293	.296		.177	-.051	-.195	-.452					
60.0		.011		.311	.295		.163	-.112	-.285	-.491		-.146			
40.0		-.105		.240	.212		.121	-.205	-.388		-.362		-.139		
32.0				.197											
25.0					.205										
20.0		0.325		.200		0.052	.016	-.240	-.468	-.557		-.151		-.159	
11.0							.024								
00.0		0.352		.152			.010	-.294	-.526	-.346	-.218		-.129		-.136
9.1	00.0		0.346	0.150		-0.001	-0.353	-0.582	-0.380	-0.234		-.141		-0.143	
11.0			0.372	0.141		-0.087	-.298	-.359	-.571	-.292		-.274		-0.157	
20.0					.079										
23.0															
32.0															
40.0	0.327		-.155	.007		-.127	-.388	-.398		-.191			-.142		
60.0		-.414		.049	.049		-.145	-.378	-.331	-.264		-.057			
80.0		-.110		.051	.044		-.149	-.309	-.304		-.151				
P.L.		-.110		.049	.012		-.141	-.288	-.280	-.276	-.151	-.057	-.142	-.157	-.143

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TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(p) $M = 1.08; \alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -														
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869	0.953
0	P.L.	0.240		0.247	0.208		0.075	-0.041	-0.117	-0.184	-0.083	0.053	0.011	-0.061	-0.073	
	80.0	.240		.253	.219		.065	-.159	-.128	-.083						
	60.0	-.116		.322	.276		.159	-.162	-.179	-.193		.053				
	40.0	.462		.280	.271		.215	-.091	-.225		-.047		.011			
	32.0			.350												
	25.0			.407												
	20.0			-0.572	.402	0.256	.183	-.057	-.327	-.237		.038		-.061		
	11.0							.221								
	00.0			0.598		.393		.242	-.041	-.366	-.209	-.039		.002		-.073
-4.4	P.L.	0.349		0.322	0.277		0.148	0.030	-0.057	-0.155	-0.156	0.003	0.016	-0.066	-0.087	
	80.0	.349		.335	.304		.174	-.063	-.071	-.156						
	60.0	.005		.407	.358		.242	-.063	-.119	-.204		.003				
	40.0	.343		.389	.344		.279	-.021	-.169		-.111		.016			
	32.0			.400												
	25.0															
	20.0			0.557	.413	0.277	.244	-.028	-.271	-.301		.003		-.066		
	11.0							.246								
	00.0			0.565		.380		.234	-.052	-.356	-.265	-.070		-.020		-.087
4.4	00.0			0.577	0.387		0.227	-0.066	-0.366	-0.273	-0.087		-0.019		-0.084	
	11.0			0.571	0.361	0.197	.040	-.127	-.423	-.271		0.028		-0.084		
	20.0						.334									
	25.0															
	32.0															
	40.0	0.497		.047	.158		.072	-.223	-.368		-.045		.002			
	60.0	-.341		.194	.168		.012	-.309	-.266	-.184		.030				
	80.0	-.040		.148	.117		-.097	-.263	-.193	-.078						
	P.L.	-.040		.161	.130		-.020	-.122	-.200	-.232	-.078	.050	.002	-.084		-.084
-8.7	P.L.	0.470		0.402	0.354		0.229	0.104	0.006	-0.122	-0.205	-0.069	-0.047	-0.119	-0.118	
	80.0	.470		.421	.393		.269	.034	-.006		-.205					
	60.0	.114		.478	.428		.318	.026	-.065	-.218		-.069				
	40.0	.210		.438	.394		.320	.037	-.142		-.295		-.047			
	32.0			.405												
	25.0															
	20.0			0.518	.397	0.266	.249	-.022	-.260	-.383		-.063		-.119		
	11.0							.235								
	00.0			0.518		.341		.196	-.096	-.367	-.437	-.163		-.063		-.118
8.7	00.0			0.546	0.355		0.192	-0.131	-0.402	-0.422	-0.178		-0.064		-0.122	
	11.0			0.546	0.305	0.119	-.062									
	20.0						.183	-.208	-.486	-.390		-.033		-0.128		
	25.0															
	32.0															
	40.0	0.511		.123												
	60.0	-.592		-.238	.009		-.075	-.366	-.552		-.091		.040			
	80.0	-.365		.056	.037		.138	-.443	-.348	-.211		-.028				
	P.L.	-.365		.047	.016		-.225	-.336	-.294		-.229					
				.082	.041		-.112	-.219	-.269	-.291	-.229	-.028	-.040	-.128	-.122	

TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(q) $M = 1.08; \alpha = 5.1^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -																	
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869	0.993			
0	P.L.	0.216		0.192		0.057	-0.051	-0.136	-0.215	-0.125	-0.016	-0.022	-0.074	-0.069					
	80.0	.216		0.239	.216	.059	-.139	-.149		-.125									
	60.0	-.146		.289	.251	.146	-.161	-.195	-.232		-.016								
	40.0	.317		.248	.228	.181	-.124	-.243		-.075									
	32.0			.284															
	23.0				.332														
	20.0					0.504	.322	0.177	.132	-.118	-.339	-.223		-.000	-.074				
	11.0						.322		.132										
	00.0							0.510	.310	.155	-.122	-.391	-.199	-.062	-.029	-.069			
									.185										
-4.3	P.L.	0.335		0.254		0.129	0.019	-0.091	-0.203	-0.236	-0.063	-0.033	-0.093	-0.095					
	80.0	.335		0.308	.286	.162	-.056	-.107		-.236									
	60.0	-.063		.356	.314	.222	-.083	-.159	-.275		-.063								
	40.0	.181		.324	.283	.229	-.068	-.219		-.156		-.033							
	32.0			.321															
	23.0				.356														
	20.0					0.477	.325	0.193	.176	-.096	-.311	-.309		-.053	-.093				
	11.0						.325		.176										
	00.0							0.474	.299	.179	-.120	-.388	-.244	-.086	-.055	-.095			
									.177										
4.3	00.0		0.490	0.309		0.175	-0.136	-0.406	-0.264	-0.095		-0.051		-0.093					
	11.0					.094													
	20.0		0.493	0.294		0.129	.010	-.174	-.434	-.228		-0.014		-0.094					
	23.0				.274														
	32.0				.204														
	40.0				0.414	.142	.057	-.221	-.317		-.062			-.024					
	60.0				.071	.172	.056	-.272	-.249	-.194		.003							
	80.0				.196	.172	.056	-.272	-.249	-.194									
	P.L.				.018	.135	-.060	-.226	-.202		-.084								
						.128	-.018	-.125	-.186	-.211	-.084	.003	-.024	-.094	-.093				
-8.7	P.L.	0.425		0.331		0.212	0.097	-0.038	-0.173	-0.298	-0.100	-0.061	-0.106	-0.070					
	80.0	.425		0.364	.249	.032	-.059			-.298									
	60.0	-.054		.418	.374	.286	-.015	-.135	-.314		-.100								
	40.0	.032		.550	.518	.252	-.062	-.226		-.391		-.061							
	32.0			.515															
	23.0				.338														
	20.0					0.434	.311	0.184	.161	-.102	-.330	-.444		-.073	-.106				
	11.0						0.442	.268	.159	-.167	-.416	-.444	-.154		-.083	-.070			
	00.0							.136											
8.7	00.0		0.466	0.269		0.138	-0.214	-0.461	-0.473	-0.168		-0.083		-0.076					
	11.0					0.473	0.258	0.038	-.222	-.262	-.516	-.289		-0.057	-0.106				
	20.0						.152												
	23.0						.079												
	32.0							0.439	-.182	-.005	-.077	-.352	-.459	-.116	-.067				
	40.0								.083	.043	.102	-.393	-.311	-.215	-.142				
	60.0								.562										
	80.0								.290	.076	.036	-.163	-.299	-.256	-.140				
	P.L.								.290		.041	-.098	-.198	-.243	-.140	-.142	-.067	-.106	-.076

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TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(r) $M = 1.08; \alpha = 10.3^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -																
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869	0.993		
0.4	P.L.	0.222		0.200	0.180		0.047	-0.038	-0.153	-0.256	-0.188	-0.061	-0.041	-0.064	-0.029			
	80.0	.222		.212	.223		.079	-.112	-.169		-.188							
	60.0	-.093		.251	.256		.106	-.139	-.221	-.285		-.061						
	40.0	.218		.239	.219		.128	-.147	-.261		-.107		-.041					
	32.0			.239														
	23.0				.272													
	20.0					0.403	.252	0.109	.077	-.160	-.327	-.208		-.025		-.064		
	11.0							.095										
	00.0								0.405	.240	.119	-.170	-.376	-.186	-.076		-.054	
																-.029		
-3.9	P.L.	0.299		0.258	0.239		0.122	0.028	-0.110	-0.248	-0.372	-0.088	-0.065	-0.093	-0.057			
	80.0	.299		.276	.286		.162	-.041	-.144		-.372							
	60.0	-.067		.307	.300		.175	-.080	-.211	-.395		-.088						
	40.0	.010		.283	.260		.175	-.117	-.283		-.220		-.065					
	32.0			.256														
	23.0				.280													
	20.0					0.390	.253	0.120	.108	-.148	-.358	-.341		-.092		-.093		
	11.0							.110										
	00.0								0.388	.228	.107	-.179	-.406	-.238	-.110		-.105	
																-.057		
4.8	00.0			0.409	0.234		0.100	-0.194	-0.424	-0.230	-0.107		-0.116			-0.054		
	11.0				0.420	0.234		0.069	-.016	-.196	-.380	-.217		-0.048		-0.114		
	20.0							.0229										
	23.0								.181									
	32.0									.128	.172		.060	-.200	-.281			
	40.0									.192	.194		.053	-.199	-.232	-.243		
	60.0									.195	.194		.053	-.199	-.232	-.243		
	80.0									.127	.171		.004	-.176	-.193	-.146		
	P.L.									.127	.135		-.007	-.096	-.177	-.239	-.146	
														-.031	-.021	-.114		
																-.054		
-8.2	P.L.	0.369		0.315	0.292		0.190	0.091	-0.076	-0.221	-0.398	-0.116	-0.091	-0.072	-0.050			
	80.0	.369		.326	.340		.226	.013	-.138		-.398							
	60.0	.031		.342	.335		.216	-.047	-.218	-.423		-.116						
	40.0	-.110		.276	.259		.178	-.141	-.320		-.391		-.091					
	32.0				.233													
	23.0					.245												
	20.0						0.352	.232	0.100	.070	-.181	-.399	-.510		-.127			
	11.0									.077						-.072		
	00.0										0.381	.195	.065	-.226	-.454	-.327	-.186	
														-.076		-.050		
9.1	00.0			0.379	0.187		0.060	-0.285	-0.504	-0.357	-0.199		-0.067			-0.051		
	11.0				0.402	0.181		-.0023	-.247	-.290	-.510	-.247		-0.243		-0.067		
	20.0							.099										
	23.0								.063									
	32.0									.107	.035		-.076	-.323	-.349	-.152		
	40.0									.095	.091		-.091	-.315	-.276	-.215		
	60.0									.1432	.191		-.091	-.315	-.276	-.215		
	80.0									.129	.083		-.099	-.253	-.245	-.110		
	P.L.									.097	.052		-.086	-.174	-.224	-.218	-.110	
														-.010	-.068	-.067		
																-.051		

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TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED FLAT-WINDSHIELD CANOPY 3

(s) $M = 1.13; \alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -														
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.392	0.455	0.527	0.655	0.760	0.869	0.993
0	P.L.	0.185		0.244	0.226		0.090	-0.013	-0.087	-0.159	-0.112	0.013	0.008	-0.057	-0.071	
	80.0	.185		.256	.242		.067	-.120	-.095	-.112						
	60.0	-.121		.319	.297		.178	-.111	-.159	-.179		.013				
	40.0	.424		.279	.294		.242	-.047	-.187		-.065		.008			
	32.0			.340												
	23.0				.418											
	20.0					0.572	.392	0.274	.220	-.017	-.289	-.242	.015		-.057	
	11.0								.250							
	00.0									-.008	-.332	-.222	-.050		-.008	-.071
-4.4	P.L.	0.329		0.317	0.291		0.169	0.054	-0.032	-0.128	-0.182	-0.028	-0.001	-0.067	-0.093	
	80.0	.329		.339	.324		.199	-.035	-.044	-.182						
	60.0	-.014		.402	.374		.278	-.020	-.083	-.185		-.028				
	40.0	.283		.384	.362		.313	.018	-.139		-.161		-.001			
	32.0			.384												
	23.0				.445											
	20.0					0.545	.398	0.290	.275	.005	-.238	-.310		-.024	-.067	
	11.0								.271							
	00.0									-.028	-.328	-.312	-.104		-.029	-.093
4.4	00.0			0.567	0.395		0.258	-0.027	-0.325	-0.241	-0.078		-0.025		-0.079	
	11.0							.190								
	20.0			0.563	0.357	0.227	.094	-.074	-.361	-.250		0.019		-0.075		
	23.0							.344								
	32.0								-.246							
	40.0			0.488	.067	.191		.112	-.155	-.305		-.045		-.004		
	60.0			.559	.195	.198		.045	-.258	-.217	-.171		.022			
	80.0			-.111	.164	.145		-.067	-.217	-.159		-.074				
	P.L.				.171	.152		.007	-.092	-.165	-.206	-.074	.022	-.004	-.075	-.079
-8.8	P.L.	0.449		0.379	0.347		0.229	0.114	0.010	-0.112	-0.205	-0.105	-0.050	-0.123	-0.140	
	80.0	.449		.414	.387		.275	.046	-.002	-.205						
	60.0	.059		.467	.435		.335	.045	-.046	-.193		-.105				
	40.0	.150		.426	.400		.358	.035	-.122		-.292		-.050			
	32.0			.379												
	23.0				.421											
	20.0					0.511	.382	0.267	.265	.001	-.234	-.357		-.082	-.123	
	11.0								.240							
	00.0									-.073	-.337	-.427	-.195		-.064	-.140
8.8	00.0			0.550	0.366		0.225	-0.088	-0.355	-0.356	-0.185		-0.068		-0.134	
	11.0							.089								
	20.0			0.552	0.309	0.134	-.139	-.157	-.426	-.384		-0.038		-0.122		
	23.0							.226								
	32.0								-.121							
	40.0			0.532	-.215	.009		-.053	-.295	-.462		-.094		-.045		
	60.0			-.508	.040	.022		-.092	-.373	-.297	-.197		-.032			
	80.0			-.322	.036	.011		-.188	-.291	-.224	-.211					
	P.L.			-.322	.066	.037		-.084	-.187	-.240	-.269	-.211	-.032	-.045	-.122	-.134

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TABLE IV.- Continued

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(t) $M = 1.13; \alpha = 5.1^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -													
		-0.015	0	0.004	0.065	0.164	0.223	0.239	0.309	0.382	0.455	0.527	0.655	0.760	0.869
0	P.L.	0.184		0.213		0.077	-0.024	-0.111	-0.190	-0.171	-0.031	-0.017	-0.066	-0.072	
	80.0	.184		0.244	.242	.068	-.107	-.120	-.164	-.235		-.031			
	60.0	-.157		.291	.275	.150	-.122	-.164	-.217		-.109		-.017		
	40.0	.268		.251	.252	.191	-.086	-.217							
	32.0			.282											
	23.0			.348											
	20.0				0.493	.315	0.195	.143	-.079	-.309	-.250		-.013		-.066
	11.0														
	00.0					0.485	.322	.206	-.080	-.366	-.220	-.081		-.024	-.072
<hr/>															
-4.3	P.L.	0.316		0.272		0.145	0.045	-0.066	-0.176	-0.263	-0.083	-0.028	-0.090	-0.093	
	80.0	.316		0.310	.306	.169	-.028	-.081	-.263						
	60.0	-.089		.355	.330	.235	-.057	-.132	-.267		-.083				
	40.0	.120		.321	.300	.263	-.040	-.195			-.204		-.028		
	32.0			.313											
	23.0			.368											
	20.0				0.467	.318	0.211	.200	-.064	-.287	-.343		-.044		-.090
	11.0														
	00.0					0.462	.306	.195	-.093	-.369	-.287	-.107		-.055	-.093
<hr/>															
4.3	00.0			0.477	0.314	0.195	-0.104	-0.370	-0.242	-0.098		-0.051		-0.095	
	11.0														
	20.0			0.482	0.286	0.154	.045	-.128	-.381	-.230		-0.019		-0.087	
	23.0				.284										
	32.0			.200											
	40.0	0.384		.083	.165	.085	-.169	-.280			-.073		-.020		
	60.0	-.338		.197	.184	.060	-.219	-.214	-.198			-.001			
	80.0	-.067		.168	.149	-.032	-.189	-.169			-.100				
	P.L.	-.067			.139	.008	-.094	-.159	-.201	-.100	-.001	-.020	-.087	-.095	
<hr/>															
-8.8	P.L.	0.384		0.328		0.217	0.114	-0.026	-0.156	-0.284	-0.116	-0.059	-0.112	-0.107	
	80.0	.384		0.368	.364	.257	.055	-.053	-.284						
	60.0	.070		.404	.377	.286	.005	-.117	-.290			-.116			
	40.0	.020		.337	.318	.275	-.046	-.209			-.388		-.059		
	32.0			.296											
	23.0			.335											
	20.0				0.406	.296	0.186	.165	-.089	-.308	-.420		-.087		-.112
	11.0														
	00.0					0.418	.269	.143	-.144	-.392	-.451	-.172		-.096	-.107
<hr/>															
8.8	00.0			0.464	0.274	0.164	-0.176	-0.418	-0.409	-0.174		-0.090		-0.113	
	11.0														
	20.0			0.471	0.233	0.068	-.178	-.214	-.462	-.288		-0.069		-0.113	
	23.0				.145										
	32.0			.071											
	40.0	0.456		-.181	-.004	-.043	-.298	-.422			-.120		-.111		
	60.0	-.498		.058	.046	.069	-.340	-.279	-.212			-.145			
	80.0	-.271		.066	.044	-.137	-.265	-.231			-.146				
	P.L.	-.271			.044	-.075	-.171	-.222	-.227	-.146	-.145	-.111	-.113	-.113	

TABLE IV.- Concluded

PRESSURE COEFFICIENTS FOR FORWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 3

(u) $M = 1.13$; $\alpha = 10.3^\circ$

TABLE V

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(a) $M = 0.80$; $\alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -														
		-0.011	0	0.004	0.052	0.102	0.142	0.149	0.193	0.249	0.324	0.467	0.662	0.804	0.985	
0	P.L.	0.277	0.177	0.045	-0.020	-0.115		-0.186	-0.164	-0.182	-0.096	-0.053	-0.037	-0.005		
	80.0			.045				-.204		-.182	-.096					
	60.0	.277		.068	-.039	-.119			-.210		-.084	-.053				
	48.0		.210													
	43.0	.367		.099	.017	-.097		-.194		-.227	-.079			-.037		
	40.0		.278													
	32.0			.174												
	29.0															
	26.0															
	20.0															
	00.0															
-4.2	P.L.	0.356	0.279	0.135	0.086	-0.020		-0.115	-0.127	-0.179	-0.133	-0.078	-0.071	-0.023		
	80.0			.135				-.113		-.187	-.133					
	60.0	.356		.179	.081	-.006			-.157		-.124	-.078				
	48.0		.292													
	43.0	.395		.216	.125	.010		-.091		-.259	-.129			-.071		
	40.0		.312													
	32.0			.229												
	29.0															
	26.0															
	20.0															
	00.0															
4.2	P.L.	0.366	0.207	0.139	0.106	-0.024		-.066	-.275	-.245	-.111	-.060				
	80.0			.145	.112	.050		-.004	-.133	-.397	-.248	-.076	-.053	-.042	-.023	
	60.0															
	48.0															
	43.0															
	40.0															
	32.0															
	29.0															
	26.0															
	20.0															
	00.0															
-8.5	P.L.	0.398	0.354	0.244	0.177	0.065		-0.049	-0.089	-0.179	-0.176	-0.125	-0.132	-0.067		
	80.0			.244				-.031		-.203	-.176					
	60.0	.398		.264	.162	.075			-.130		-.199	-.125				
	48.0		.346													
	43.0	.366		.250	.174	.067		-.039		-.341	-.228					
	40.0			.289												
	32.0															
	29.0															
	26.0															
	20.0															
	00.0															
8.5	P.L.	0.313	0.184	0.096	0.064	0.038	-0.026	-.073	-.323	-.361	-.223	-.132				
	80.0			.096	.064	.038	-.051	-.202	-.511	-.354	-.151	-.099	-.093	-.067		
	60.0															
	48.0															
	43.0															
	40.0															
	32.0															
	29.0															
	26.0															
	20.0															
	00.0															
8.5	P.L.	0.322	0.309	0.087	0.053	0.046	-0.046	-.238	-.464	-.209	-.501	-.334	-.149	-0.102	-0.082	-0.049
	80.0			.062				-.179		-.422	-.553	-.321	-.115	-.098		
	60.0															
	48.0															
	43.0															
	40.0															
	32.0															
	29.0															
	26.0															
	20.0															
	00.0															
	P.L.															

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TABLE V.- *Continued*

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

$$(b) M = 0.80; \alpha = 5.1^\circ$$

β , deg	ϕ , deg	Pressure coefficients for x/l of -												
		-0.011	0	0.004	0.052	0.102	0.142	0.149	0.193	0.249	0.324	0.467	0.662	0.804
0	P.L. 80.0 60.0 48.0 43.0 40.0 32.0 29.0 26.0 20.0 00.0	0.242 .242 .242 .306 .224 .118 0.321 .302	0.158 .057 .050 .181 .076 .007 .128 .023 .086	0.037 .037 .045 .125 .123 .102 .063 .050	-0.032 -.045 -.125 -.209 -.256 -.256 -.063 -.055	-0.123 -.125 -.209 -.171 -.180 -.180 -.156 -.156	-0.206 -.203 -.231 -.256 -.225 -.225 -.171 -.171	-0.197 -.220 -.108 -.097 -.067 -.067 -.332 -.391 -.213	-0.219 -.157 -.108 -.054 -.036 -.036 -.225 -.213 -.054	-0.137 -.137 -.108 -.054 -.036 -.036 -.067 -.054 -.034	-0.054 -.054 -.054 -.058 -.058 -.058 -.067 -.054 -.019	-0.058 -.058 -.058 -.001 -.001 -.001 -.064 -.064 -.064	-0.001	
-4.2	P.L. 80.0 60.0 48.0 43.0 40.0 32.0 29.0 26.0 20.0 00.0	0.296 .296 .296 .319 .244 .158 0.302 .284	0.232 .120 .136 .248 .153 .072 .136 .059	0.120 .040 .045 -.046 -.046 -.034 0.028 -.028	0.057 -.047 -.045 -.140 -.140 -.140 -0.102 -.102	-0.047 -.151 -.154 -.140 -.140 -.140 -.102 -.136	-0.173 -.237 -.245 -.173 -.173 -.173 -.136 -.136	-0.237 -.185 -.185 -.087 -.087 -.087 -.281 -.115	-0.185 -.185 -.173 -.064 -.064 -.064 -.066 -.066	-0.087 -.087 -.087 -.064 -.064 -.064 -.042 -.042	-0.064 -.064 -.064 -.019	-0.019		
4.2	00.0 20.0 26.0 29.0 32.0 40.0 43.0 48.0 60.0 80.0 P.L.	0.295 0.295 0.295 0.224 0.148 .026 0.111 0.083 0.083 0.111	0.280 .081 -.080 0.118 -.118 -.162 -.264 -.264 0.100 -.100 -.187 -.254 -.254 0.138 -.083 -.214 -.214 -.214	0.069 0.030 0.030 0.017 0.017 0.017 0.026 0.026 0.026 0.026	0.030 -.069 -.069 -.069 -.069 -.069 -.069 -.069 -.069 -.069	-0.161 -.292 -.292 -.277 -.277 -.277 -.402 -.402 -.402 -.402	-0.205 -.277 -.277 -.277 -.277 -.277 -.234 -.234 -.234 -.234	-0.425 -.425 -.425 -.231 -.231 -.231 -.070 -.070 -.070 -.070	-0.247 -.247 -.247 -.071 -.071 -.071 -.063 -.063 -.063 -.063	-0.081 -.081 -.081 -.071 -.071 -.071 -.063 -.063 -.063 -.063	-0.066 -.066 -.066 -.070 -.070 -.070 -.037 -.037 -.037 -.037	-0.037 -.037 -.037 -.014	-0.014	
-8.5	P.L. 80.0 60.0 48.0 43.0 40.0 32.0 29.0 26.0 20.0 00.0	0.301 .301 .260 0.239 .224	0.278 .195 .195 .205 .114 .027 0.172 .103 .006 0.137 0.111 -.083 -.083 0.024 0.024	0.195 0.140 0.140 0.114 0.027 0.172 0.103 0.006 0.137 0.100 -.100 -.187 -.254 -.254 0.138 -.083 -.214 -.214 -.214	0.034 0.034 0.034 0.027 0.027 0.066 0.066 0.066 0.066 0.066 0.047 0.047 0.047 0.047 0.047 0.012 0.012 0.012 0.012 0.012	-0.085 -.057 -.057 -.194 -.194 -0.107 -.107 -.107 -.425 -.425 -0.109 -.109 -.109 -.410 -.410 -0.152 -.152 -.152 -.206 -.206 -0.395 -.395 -.395 -.138 -.138 -0.548 -.548 -.548 -.095 -.095 -0.561 -.561 -.561 -.094 -.094 -0.459 -.459 -.459 -.541 -.541 -0.306 -.306 -.306 -.344 -.344 -0.142 -.142 -.142 -.100 -.100 -0.123 -.123 -.123 -.096 -.096	-0.136 -.237 -.237 -.266 -.266 -.425 -.273 -.273 -.273 -.273 -0.231 -.129 -.129 -.129 -.129 -0.129 -.107 -.107 -.107 -.107 -0.107 -.095 -.095 -.095 -.095 -0.095 -.095 -.095 -.095 -.095 -0.095 -.095 -.095 -.095 -.095	-0.129 -.129 -.129 -.129 -.129 -.107 -.107 -.107 -.107 -.107 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095	-0.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095 -.095	-0.028				
8.5	00.0 20.0 26.0 29.0 32.0 40.0 43.0 48.0 60.0 80.0 P.L.	0.232 0.247 0.247 0.113 0.113 0.113 0.193 0.193 0.193 0.193 0.193	0.011 -.005 -.240 -.144 -.144 -.144 -.418 -.418 -.418 -.418 -.418	-0.027 -.320 -.525 -.459 -.459 -.459 -.358 -.358 -.358 -.358 -.358	-0.128 -.292 -.292 -.539 -.539 -.539 -.408 -.408 -.408 -.408 -.408	-0.292 -.548 -.548 -.548 -.548 -.548 -.361 -.361 -.361 -.361 -.361	-0.548 -0.357 -0.357 -0.245 -0.245 -0.245 -0.339 -0.339 -0.339 -0.210 -0.210	-0.357 -.272 -.272 -.116 -.116 -.116 -.134 -.134 -.134 -.110 -.110	-0.142 -.123 -.123 -.116 -.116 -.116 -.162 -.162 -.162 -.110 -.110	-0.100 -.096 -.096 -.083 -.083 -.083 -.162 -.162 -.162 -.110 -.110	-0.055 -.055 -.055 -.083 -.083 -.083 -.029 -.029 -.029 -.029 -.029	-0.029		

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TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FIAT-WINDSHIELD CANOPY 4

(c) $M = 0.80; \alpha = 10.2^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -												
		-0.011	0	0.004	0.052	0.102	0.142	0.149	0.193	0.249	0.324	0.467	0.662	0.804
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0.2	P.L. 80.0 60.0 48.0 43.0 40.0 32.0 29.0 26.0 20.0 00.0	0.161 .161 .161 .214 .172 .067 .026 0.238 .229	0.104 .002 .027 .135 .039 .146 .146 .118 .070 .058	0.002 .063 -.139 -.037 -.146 -.146 -.026 -.118 -.202 -.117	-0.043 -.131 -.197 -.248 -.227 -.266 -.095 -.214 -.353 -.223 -.063 -.029 -.019 -.003	-0.213 -.221 -.247 -.119 -.118 -.048	-0.149 -.149 -.118 -.048	-0.048 -.048	-0.040 -.040	0.012				
-4.0	P.L. 80.0 60.0 48.0 43.0 40.0 32.0 29.0 26.0 20.0 00.0	0.141 .141 .141 .226 .186 .095 .002 0.224 .216	0.173 .082 .107 .193 .108 .028 -.093 .075 .020	0.035 -.060 .017 -.069 -.091 -.162 	-0.167 -.206 -.246 -.197 -.181 -.360 -.170 -.372 -.242 -.453 -.240	-0.276 -.204 -.204 -.197 -.360 -.170 -.061 -.299 -.242 -.453 -.240	-0.204 -.076 -.076	-0.076 -.046	-0.046 -.011					
4.4	00.0 20.0 26.0 29.0 32.0 40.0 43.0 48.0 60.0 80.0 P.L.	0.219 .026 -.113 -.015 .117 	0.011 -.034 -.324 -.278 -.256 -.256 -.237 -.237 -.216 -.216 -.203	-0.137 -.243 -.302 -.464 -.191 -.372 -.274 -.274 -.111 -.111 -.203	-0.246 -.090 -.069 -.051 -.230 -.071 -.081 -.037 -.111 -.223	-0.246 -.080 -.051 -.011 -.230 -.071 -.037 -.047 -.047 -.011	-0.090 -.027 -.011							
-8.3	P.L. 80.0 60.0 48.0 43.0 40.0 32.0 29.0 26.0 20.0 00.0	0.235 .235 .235 .186 .136 .062 -.043 .050 -.034	0.225 0.153 0.153 0.069 0.052 0.075 -.113 -.124 0.074	0.109 0.008 0.021 -.177 -.176 -.506 -.113 -.185 -.195	-0.114 -.177 -.355 -.258 -.176 -.506 -.278 -.222 -.564 -.325	-0.289 -.256 -.256 -.121 -.278 -.066	-0.256 -.121	-0.121 -.066	-0.019					
8.7	00.0 20.0 26.0 29.0 32.0 40.0 43.0 48.0 60.0 80.0 P.L.	0.177 -.060 -.271 -.538 0.092 -.157 -.251 -.315 -.366 -.199 -.199	-0.058 -.100 -.356 -.550 -.472 -.542 -.320 -.219 -.102 -.224 -.272	-0.200 -.0352 -.479 -.156 -.117 -.058	-0.595 -.352 -.275 -.166 -.065	-0.166 -.083 -.031 -.022								

TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(d) $M = 0.90$; $\alpha = 0^\circ$

TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(e) $M = 0.90; \alpha = 5.1^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -												
		-0.011	0	0.004	0.052	0.102	0.142	0.149	0.193	0.249	0.324	0.467	0.662	0.804
0	P.L.	0.235	0.157	0.041	-0.019	-0.126		-0.233	-0.246	-0.267	-0.140	-0.060	-0.038	-0.001
80.0		.235		.041			.041			.241	.266	.140		
60.0				.061	-.038	-.132				.298	.111	.060		
48.0			.192											
43.0		.300												
40.0				.081	.004	-.126								
32.0				.247										
29.0					.131									
26.0						.107								
20.0							.059	-.059	-.166	-.186	-.420	-.246	-.075	-.043
00.0		0.327		.315	.142			-.055	-.055	-.180	-.464	-.225	-.064	-.039
					.107	.068							-.017	-.001
-4.3	P.L.	0.333	0.262	0.144	0.076	-0.037		-0.161	-0.203	-0.304	-0.192	-0.090	-0.062	-0.017
80.0				.144				.148		.316	.192			
60.0		.333		.163	.063	-.036			.248		.179	.090		
48.0			.282											
43.0		.353		.177	.094	-.035			.148		.399	.167		.062
40.0			.279											
32.0				.181										
29.0					.062									
26.0						.025								
20.0		0.335		.155	.056	-.016	-.103	-.135	-.410	-.342	-.120	-.073		
00.0			.317	.089			-.076	-.190	-.520	-.264	-.092	-.077	-.042	-.017
4.3	00.0		0.310	0.087	0.049		-0.069	-0.206	-0.512	-0.252	-0.093	-0.076	-0.041	-0.015
20.0		0.326		.098			-0.154	-.322	-.295	-.540	-.243	-.081	-.075	
26.0					-.058									
29.0						.288								
32.0				.035										
40.0			.180											
43.0		0.255			.109	-.149	-.272							
48.0				.053										
60.0						.389								
80.0		.144												
P.L.														
-8.6	P.L.	0.334	0.309	0.219	0.164	0.050		-0.086	-0.146	-0.293	-0.230	-0.136	-0.097	-0.031
80.0				.219				.062		.351	.230			
60.0		.334		.231	.137	.040			.203		.264	.136		
48.0			.299											
43.0		.296		.198	.127	.011			.120		.555	.263		.097
40.0				.241										
32.0					.164									
29.0						.010								
26.0							.061							
20.0		0.279		.137		-.024	-.097	-.171	-.432	-.668	-.183	-.105		
00.0			.265	.047	.014		-.108	-.271	-.592	-.478	-.151	-.105	-.054	-.031
8.6	00.0		0.271	0.032	-.005		-0.101	-0.277	-0.607	-0.452	-0.151	-0.113	-0.055	-0.030
20.0		0.284		.017		-0.299	-.578	-.456	-.742	-.299	-.145	-.107		
26.0						.210								
29.0							.571							
32.0														
40.0				.066										
43.0		0.154			.425	-.408	-.495							
48.0				.163										
60.0							.567							
80.0		-.005			.302	-.360	-.451							
P.L.														

TABLE V.—Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

$$(f) M = 0.90; \alpha = 10.2^\circ$$

TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

$$(g) \quad M = 0.95; \alpha = 0^\circ$$

TABLE V.—Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(h) $M = 0.95$; $\alpha = 5.1^\circ$

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TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

$$(1) \quad M = 0.95; \quad \alpha = 10.2^\circ$$

TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(j) $M = 0.99$; $\alpha = 0^\circ$

TABLE V.—Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

$$(k) \quad M = 0.99; \alpha = 5.1^\circ$$

TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(1) $M = 0.99$; $\alpha = 10.3^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -												
		-0.011	0	0.004	0.052	0.102	0.142	0.149	0.193	0.249	0.324	0.467	0.662	0.804
0.2	P.L.	0.250	0.198	0.089	0.045	-0.048		-0.190	-0.217	-0.343	-0.289	-0.165	-0.135	-0.003
	80.0		.089					-.186		-.352	-.289			
	60.0	.250		.110	.032	-.059			-.261		-.253	-.165		
	48.0		.228											
	43.0	.301		.121	.054	-.068		-.200		-.432	-.227			
	40.0		.263											
	32.0		.143											
	29.0													
	26.0													
	20.0													
	00.0													
-4.1	P.L.	0.290	0.259	0.163	0.123	0.024		-0.123	-0.181	-0.327	-0.396	-0.198	-0.137	-0.040
	80.0		.163					-.106		-.352	-.396			
	60.0	.290		.191	.104	.013			-.228		-.365	-.198		
	48.0		.283											
	43.0	.304		.186	.112	-.004		-.151		-.516	-.307			
	40.0		.275											
	32.0		.176											
	29.0													
	26.0													
	20.0													
	00.0													
4.5	P.L.	0.317	0.307	0.087	0.053		-0.060	-0.198	-0.478	-0.411	-0.237	-0.232	-0.115	-0.038
	80.0		.102				-.017	-.274	-.249	-.479	-.377	-.202	-.160	
	20.0						-.025							
	26.0							-.203						
	29.0													
	32.0													
	40.0		.213											
	43.0	0.262		.033	-.066	-.184		-.298		-.385	-.199			
	48.0		.122											
	60.0	.181												
	80.0													
-8.5	P.L.	0.314	0.315	0.240	0.200	0.098		-0.047	-0.129	-0.273	-0.549	-0.253	-0.170	-0.044
	80.0		.240					-.016		-.318	-.549			
	60.0	.314		.246	.161	.069			-.227		-.642	-.253		
	48.0		.302											
	43.0	.274		.185	.124	.016		-.114		-.573	-.417			
	40.0		.235											
	32.0		.152											
	29.0													
	26.0													
	20.0													
8.9	P.L.	0.280	0.280	0.023	-0.005		-0.096	-0.307	-0.563	-0.650	-0.398	-0.201	-0.127	-0.043
	80.0		.019				-.0257	-.476	-.411	-.634	-.460	-.349	-.322	
	20.0						-.172							
	26.0													
	29.0													
	32.0													
	40.0		.124											
	43.0	0.200		.312	-.280	-.348		-.454		-.398	-.303			
	48.0		.048											
	60.0	.081		.197	-.224	-.295			-.432		-.226	-.166		
	80.0		.123								-.353	-.205		
	P.L.	.081	-.002	-.123	-.146	-.221		-.339	-.349	-.369	-.205	-.166	-.197	-.043

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TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(m) $M = 1.02$; $\alpha = 0^\circ$

TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(n) $M = 1.02$; $\alpha = 5.1^\circ$

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TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

$$(o) \quad M = 1.02; \alpha = 10.3^\circ$$

β , deg	ϕ , deg	Pressure coefficients for x/l of -											
		-0.011	0	0.004	0.052	0.102	0.142	0.149	0.193	0.249	0.324	0.467	0.662
0.2	P.L. 80.0 60.0 48.0 45.0 40.0 32.0 29.0 26.0 20.0 00.0	0.288 .288 .262 .343 .298 .173 0.368 .356	0.228 .115 .138 .055 .142 .080 .090 .170 .104	0.115 .075 .055 -.036 .040 -.040 -.039 -.007 -.019	-0.020 -.164 -.165 -.235 -.177 -.382 -.374 -.126 -.139 -.134 -.413 -.537 -.360 -.169 -.132 -.161 -.122	-0.186 -.306 -.316 -.222 -.201 -.133 -.133 -.088 -.039	-0.258 -.258 -.222 -.151 -.133 -.133	-0.151 -.133 -.133 -.133	-0.133 -.133 -.133	-0.039			
-4.1	P.L. 80.0 60.0 48.0 45.0 40.0 32.0 29.0 26.0 20.0 00.0	0.318 .318 .313 .333 .305 .207 0.340 .331	0.286 .191 .221 .144 .032 .026 .119 .095	0.191 .191 .136 .046 .032 -.027 -.051 -.061	-0.055 -.088 -.074 -.145 -.281 -.368 -.330 -.179	-0.088 -.145 -.191 -.456 -.280 -.133	-0.281 -.368 -.330 -.179	-0.179 -.133 -.133	-0.133 -.133	-0.066			
4.5	00.0 20.0 26.0 29.0 32.0 40.0 45.0 48.0 60.0 80.0 P.L.	0.334 0.343 .241 0.288 .148 .028 .138	0.117 .128 .003 .086 -.019 -.045 -.155 -.270 -.346 -.178 -.135	0.084 -.089 -.250 -.224 -.164 -.445 -.405 -.226 -.221 -.157	-0.026 -.026 -.224 -.462 -.348 -.184 -.157	-0.164 -.445 -.462 -.348 -.184 -.157	-0.405 -.348 -.184 -.157	-0.226 -.221 -.157	-0.221 -.115 -.072				
-8.4	P.L. 80.0 60.0 48.0 45.0 40.0 32.0 29.0 26.0 20.0 00.0	0.339 .339 .332 .307 .268 .185 0.310 .306	0.339 .265 .274 .189 .099 .051 .011 .164 .088 .056	0.265 0.226 0.189 .099 .051 -.081 -.011 -.062 -.059 	0.128 0.128 0.128 0.128 0.128 0.128 0.128 0.128 0.128 0.128	-0.018 -.010 -.186 -.520 -.520 -.520 -.520 -.018 -.018 -.018	-0.091 -.242 -.285 -.390 -.390 -.390 -.390 -.390 -.390 -.390	-0.242 -.491 -.491 -.234 -.234 -.234 -.234 -.234 -.234 -.234	-0.234 -.168 -.079				
8.9	00.0 20.0 26.0 29.0 32.0 40.0 45.0 48.0 60.0 80.0 P.L.	0.311 0.327 .060 0.230 .013 .114 .094 .114	0.056 .052 -.061 -.060 -.251 -.195 	0.029 -.022 -.412 -.412 -.310 -.310 -.497 -.300	-0.060 -.442 -.371 -.601 -.411 -.401 -.314 -.313	-0.272 -.371 -.601 -.430 -.363 -.401 -.321 -.331	-0.519 -.646 -.646 -.430 -.277 -.204 -.187 -.187	-0.388 -.187 -.322 -.322 -.277 -.156 -.197 -.197	-0.126 -.079				

TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(p) $M = 1.08; \alpha = 0^\circ$

β , deg	ϕ , deg	Pressure coefficients for x/l of -												
		-0.011	0	0.004	0.052	0.102	0.142	0.149	0.193	0.249	0.324	0.467	0.662	0.804
0	P.L.	0.449	0.332	0.176	0.131	0.022		-0.087	-0.110	-0.165	-0.116	-0.086	-0.077	-0.014
	80.0			.176				-.129		-.171	-.116			
	60.0	.449		.197	.116	.011			-.184		-.111	-.086		
	48.0		.369											
	43.0	.530		.219	.167	.045		-.081		-.249	-.108			
	40.0			.431										
	32.0				.300									
	29.0					.080								
	26.0					.246								
	20.0		0.537		.317		.152	0.032	.017	-.246	-.280	-.101	-.071	
	00.0			.513	.286	.276		.158	.044	-.261	-.296	-.088	-.069	-.064
-4.4	P.L.	0.528	0.426	0.278	0.224	0.109		-0.016	-0.039	-0.135	-0.192	-0.113	-0.106	-0.033
	80.0			.278				-.034		-.147	-.192			
	60.0	.528		.512	.222	.126			-.094		-.179	-.113		
	48.0			.457										
	43.0	.565		.358	.268	.153		.000		-.252	-.177			
	40.0			.468										
	32.0				.358									
	29.0					.180								
	26.0					.296								
	20.0					.355		.205	0.117	.046	-.197	-.316	-.157	-.094
	00.0			.502	.282	.269			.152	.015	-.275	-.361	-.121	-.090
4.4	00.0		0.505	0.268	0.252		0.065	0.155	0.012	-0.283	-0.360	-0.124	-0.094	-0.089
	20.0		0.526		.270			-.107	-.094	-.355	-.339	-.113	-.094	
	26.0				.141									
	29.0					.193								
	32.0							-.105						
	40.0													
	43.0	0.461			.356									
	48.0				.002	-.026	-.120		-.228		-.288	-.099		
	60.0				.217									
	80.0					.001	-.056	-.146			-.318	-.092	-.091	
	P.L.					.056					-.237	-.210	-.094	
						.331								
-8.7	P.L.	0.550	0.492	0.371	0.320	0.206		0.069	0.030	-0.097	-0.274	-0.141	-0.154	-0.027
	80.0			.371				.073		-.122	-.274			
	60.0	.550		.398	.309	.214			-.023		-.324	-.141		
	48.0			.499										
	43.0	.533		.390	.325	.219		.077		-.275	-.376			
	40.0			.459										
	32.0				.372									
	29.0					.217								
	26.0													
	20.0													
	00.0			0.485		.332		.219	0.152	.050	-.193	-.394	-.251	-.132
					.469	.255			.149	-.112	-.326	-.465	-.180	-.127
8.7	00.0		0.482	0.241	0.209		0.123	0.084	-0.336	-0.497	-0.203	-0.144	-0.124	-0.024
	20.0		0.501		.219		-0.068	-.314	-.265	-.491	-.577	-.172	-.144	
	26.0						-.002							
	29.0							-.402						
	32.0													
	40.0													
	43.0				.258									
	48.0				.001	-.278	-.299	-.345		-.444		-.344	-.174	
	60.0				.184		-.247	-.278	-.331		-.474			
	80.0				.130									
	P.L.				.184									
					.077	-.130	-.135	-.197		-.290	-.314	-.307	-.139	-.193

TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(q) $M = 1.08$; $\alpha = 5.1^\circ$

TABLE V-- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(r) $M = 1.08; \alpha = 10.3^\circ$

θ , deg	ϕ , deg	Pressure coefficient for x/l of -														
		-0.011	0	0.004	0.052	0.102	0.142	0.149	0.193	0.249	0.324	0.467	0.662	0.804	0.985	
0.2	P.L.	0.295	0.257	0.167	0.132	0.051		-0.091	-0.125	-0.236	-0.236	-0.101	-0.074	0.053		
80.0				.167				-.095		-.248	-.236					
60.0		.295		.189	.123	.040			-.170		-.195	-.101				
48.0			.291													
43.0		.345			.199	.142	.032		-.102		-.350	-.166		-.074		
40.0			.325													
32.0				.222												
29.0							.037									
26.0								.150								
20.0		0.382		.219		.064	-0.044	-.071	-.292	-.318	-.133	-.082				
00.0			.375	.186	.161		.049	-.074	-.338	-.295	-.122	-.070	-.035	.053		
-4.1	P.L.	0.329	0.319	0.241	0.207	0.118		-0.030	-0.083	-0.215	-0.370	-0.133	-0.077	0.012		
80.0				.241				-.019		-.241	-.370					
60.0		.329		.271	.195	.109			-.134		-.342	-.133				
48.0			.348													
43.0		.345			.264	.198	.091		-.057		-.401	-.260		-.077		
40.0			.339													
32.0				.254												
29.0							.083									
26.0					.172											
20.0		0.359		.228		.095	0.005	.069	-.282	-.444	-.203	-.119				
00.0			.357	.176	.146		.034	-.121	-.371	-.399	-.188	-.164	-.058	.012		
4.6	00.0			0.362	0.159	0.139		0.040	-0.099	-0.361	-0.333	-0.170	-0.168	-0.048	0.008	
20.0		0.365		.172			-0.012	-.160	-.144	-.365	-.294	-.131	-.094			
26.0				.062												
29.0							.096									
32.0					.125											
40.0																
43.0		0.305		.279		.032	.020	-.076		-.192		-.290	-.123		-.058	
48.0				.185												
60.0						.032										
60.0							.016	-.056		-.243		-.132	-.085			
80.0						.058										
P.L.						.065										
						.171	.047	-.024		-.172	-.175	-.251	-.162	-.085	-.058	.008
-8.4	P.L.	0.353	0.366	0.303	0.267	0.177		0.036	-0.030	-0.186	-0.426	-0.162	-0.086	-0.010		
80.0				.303				.058		-.228	-.426					
60.0		.353		.316	.234	.154			-.124		-.565	-.162				
48.0			.367													
43.0		.325		.259	.199	.109		-.022		-.451	-.360			-.086		
40.0			.306													
32.0				.227												
29.0						.063										
26.0					.133											
20.0		0.339		.204		.070	-0.006	-.085	-.329	-.580	-.302	-.116				
00.0			.337	.122	.101		.003	-.270	-.435	-.572	-.373	-.107	-.047	-.010		
8.9	00.0		0.348	0.106	0.072		-0.007	-0.221	-0.432	-0.549	-0.336	-0.107	-0.053	-0.009		
20.0		0.358		.099			-0.162	-.367	-.302	-.499	-.361	-.257	-.241			
26.0					-.097											
29.0																
32.0																
40.0																
43.0																
48.0		0.256		.210		.232	-.209	-.243		-.332		-.296	-.219		-.119	
60.0																
60.0		.147														
80.0																
P.L.		.147		.078	-.063	-.066	-.122		-.229	-.242	-.258	-.127	-.063	-.119	-.009	

TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(s) $M = 1.13$; $\alpha = 0^\circ$

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TABLE V.- Continued

PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

$$(t) \quad M = 1.13; \quad \alpha = 5.1^\circ$$

TABLE V.- Concluded

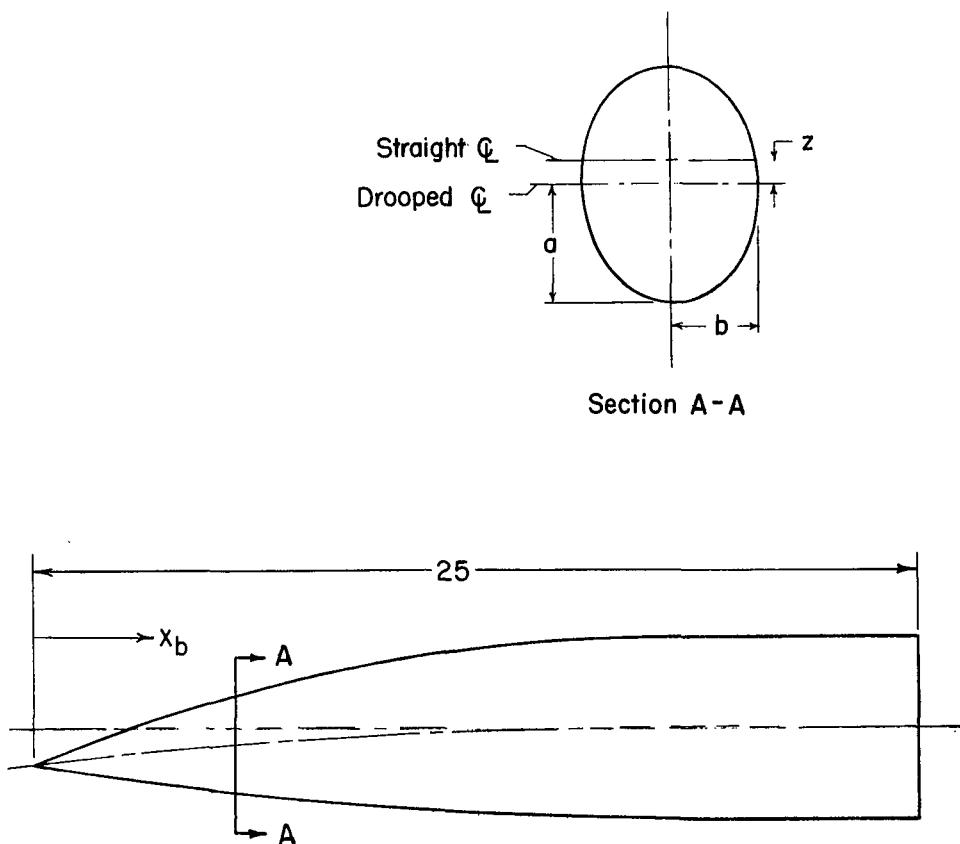
PRESSURE COEFFICIENTS FOR REARWARD-LOCATED SMALL FLAT-WINDSHIELD CANOPY 4

(u) $M = 1.13; \alpha = 10.3^\circ$

? deg	ϕ , deg	Pressure coefficients for x/l of -												
		-0.011	0	0.004	0.052	0.102	0.142	0.149	0.193	0.249	0.324	0.467	0.662	0.804
0.2	P.L.	0.254	0.225	0.122	0.102	0.043		-0.080	-0.117	-0.206	-0.227	-0.105	-0.103	-0.011
80.0				.122										
60.0	.254			.148	.097	.058								
48.0			.261											
43.0	.305				.160	.114	.031							
40.0				.303										
32.0					.186									
29.0							.033							
26.0								.124						
20.0	0.352					.187		.063	-0.037	-0.066	-0.271	-0.292	-0.119	-0.085
00.0						.349	.156	.136	.050	-0.071	-0.315	-0.275	-0.110	-0.076
-4.1	P.L.	0.282	0.281	0.209	0.191	0.117		-0.018	-0.068	-0.177	-0.368	-0.131	-0.100	-0.034
80.0				.209										
60.0	.282			.248	.185	.110								
48.0			.316											
43.0	.303			.245	.187	.093								
40.0				.314										
32.0					.236									
29.0							.082							
26.0								.165						
20.0	0.337					.210		.094	0.012	-.051	-.258	-.402	-.189	-.119
00.0						.337	.154	.133	.039	-.101	-.336	-.364	-.168	-.166
4.6	00.0		0.347	0.146	0.120		0.010	0.090	-0.334	-0.325	-0.164	-0.175	-0.079	-0.035
20.0			0.349		.156		-0.016	-.158	-.133	-.340	-.282	-.124	-.101	
26.0					.042									
29.0														
40.0														
43.0														
48.0	0.278				.109									
43.0														
48.0														
60.0	.173				.007	-.009	-.079							
80.0														
P.L.	.201													
-8.5	P.L.	0.279	0.318	0.290	0.272	0.187		0.049	-0.009	-0.154	-0.386	-0.190	-0.130	-0.037
80.0					.290									
60.0	.279				.316	.245	.169							
48.0														
43.0	.257				.266	.211	.126							
40.0														
32.0						.238								
29.0														
26.0														
20.0	0.309					.149								
00.0														
8.9	00.0		0.335	0.122	0.078		0.000	-0.220	-0.406	-0.513	-0.356	-0.148	-0.095	-0.038
20.0			0.337		.111									
26.0														
29.0														
32.0														
40.0														
43.0														
48.0														
60.0	.209													
43.0	0.233													
48.0														
60.0	.045													
80.0	.129													
P.L.	.129													

~~CONFIDENTIAL~~

BODY DIMENSIONS			
x_b	a	b	z
0	0	0	1.000
.250	.073	.058	.973
.500	.144	.115	.945
.750	.214	.171	.917
1.000	.283	.226	.896
1.250	.351	.281	.863
1.500	.418	.334	.837
1.750	.483	.386	.811
2.000	.548	.438	.785
2.250	.611	.489	.760
2.500	.674	.539	.735
3.750	.969	.775	.617
5.000	1.237	.990	.510
6.250	1.479	1.183	.413
7.500	1.695	1.356	.326
8.750	1.885	1.508	.250
10.000	2.049	1.639	.183
11.250	2.187	1.750	.127
12.500	2.300	1.840	.081
13.750	2.388	1.910	.046
15.000	2.450	1.960	.020
16.250	2.480	1.990	.005
17.500	2.500	2.000	.000
	↓	↓	↓
25.000	2.500	2.000	.000

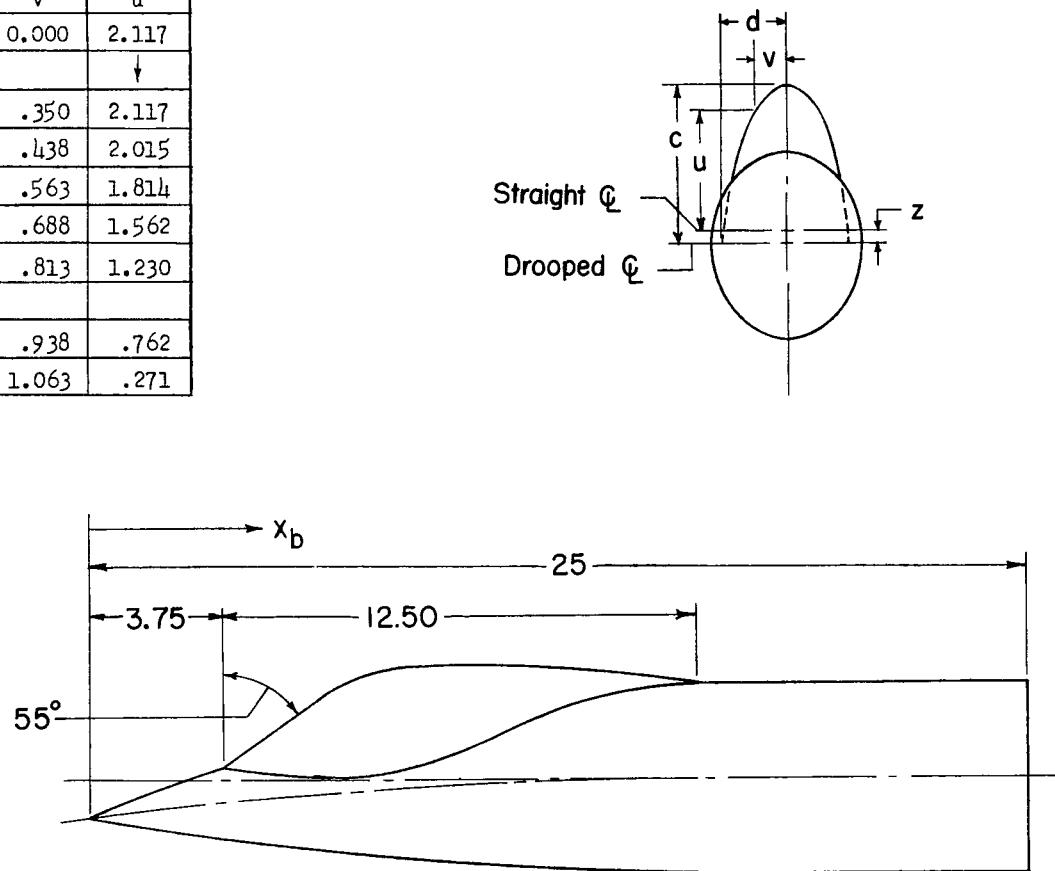


(a) Body.

Figure 1.- Model details. All dimensions are in inches.

CANOPY FACE					
$x_b = 3.750$		$x_b = 5.000$		$x_b = 6.250$	
v	u	v	u	v	u
0.000	0.358	0.000	1.227	0.000	2.117
	↓		↓		↓
.350	.358	.350	1.227	.350	2.117
.438	.244	.438	1.130	.438	2.015
.563	.050	.563	.956	.563	1.814
		.688	.694	.688	1.562
		.813	.330	.813	1.230
		.878	.120		
			.938		.762
				1.063	.271

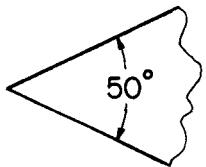
CANOPY BODY		
x_b	c	d
7.500	3.096	1.238
8.750	3.175	1.270
10.000	3.148	1.259
11.250	3.077	1.231
12.500	2.961	1.184
13.750	2.811	1.124
15.000	2.655	1.062
16.250	2.480	.992



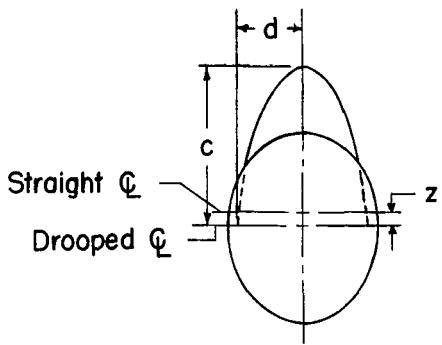
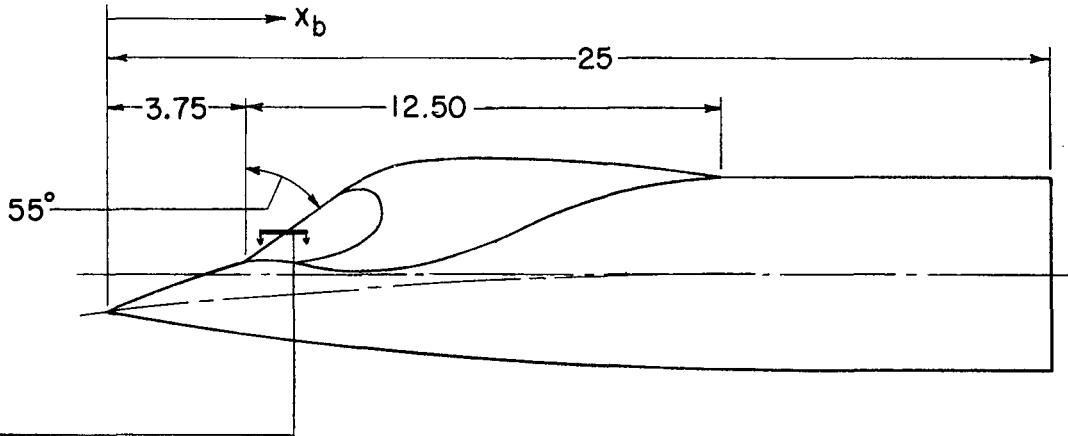
(b) Canopy 1.

Figure 1.- Continued.

CANOPY BODY		
x_b	c	d
3.750	0.969	
5.000	1.737	
6.250	2.516	1.006
7.500	3.096	1.238
8.750	3.175	1.270
10.000	3.148	1.259
11.250	3.077	1.231
12.500	2.961	1.184
13.750	2.811	1.124
15.000	2.655	1.062
16.250	2.480	.992

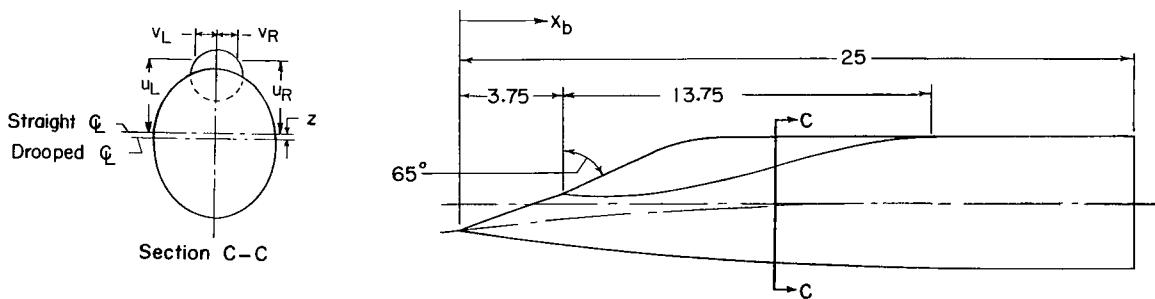


Section B-B



(c) Canopy 2.

Figure 1.- Continued.



MEASURED COORDINATES									
x_b	v_L	u_L	v_R	u_R	x_b	v_L	u_L	v_R	u_R
3.816	0	0.352	0	0.352	10.066	0	2.476	0	2.476
	.350	.322	.350	.352		.390	2.385	.390	2.382
	.425	.244	.425	.268		.533	2.293	.533	2.288
	.475	.163	.475	.187		.629	2.198	.629	2.195
	.508	.109	.508	.132		.698	2.101	.698	2.098
5.066	0	.945	0	.945	11.316	.748	2.010	.748	2.006
	.350	.919	.350	.915		.782	1.937	.782	1.916
	.475	.803	.475	.820		.802	1.886	.802	1.832
	.600	.594	.600	.611		.809	1.867	.809	1.795
	.675	.407	.675	.454		.863	1.545	.863	1.552
	.684	.393	.684	.402					
6.316	0	1.551	0	1.551	12.566	0	2.476	0	2.476
	.350	1.530	.350	1.511		.370	2.378	.370	2.380
	.475	1.435	.475	1.430		.503	2.284	.503	2.283
	.600	1.280	.600	1.276		.591	2.185	.591	2.187
	.725	1.052	.725	1.059		.653	2.095	.653	2.086
	.803	.693	.796	.693		.695	2.021	.695	1.991
						.721	1.968	.721	1.905
						.771	1.809	.771	1.811
7.566	0	2.118	0	2.118	13.816	0	2.477	0	2.477
	.381	2.036	.381	2.033		.348	2.371	.348	2.381
	.510	1.945	.510	1.935		.472	2.269	.472	2.283
	.647	1.851	.647	1.824		.552	2.172	.552	2.174
	.724	1.757	.724	1.708		.615	2.054	.615	2.034
	.782	1.653	.782	1.592					
	.823	1.554	.823	1.489					
	.851	1.467	.851	1.388					
	.866	1.403	.866	—					
	.860	.997	.829	1.000					
8.816	0	2.411	0	2.411	15.066	0	2.485	0	2.485
	.212	2.391	.212	2.384		.332	2.351	.332	2.359
	.447	2.310	.447	2.292					
	.578	2.226	.578	2.198	16.316				
	.670	2.140	.670	2.103					
	.737	2.058	.737	2.005					
	.706	1.974	.706	1.903					
	.819	1.900	.819	1.810					
	.840	1.841	.840	1.749					
	.819	1.810	.819	1.715					
	.878	1.283	.830	1.290					

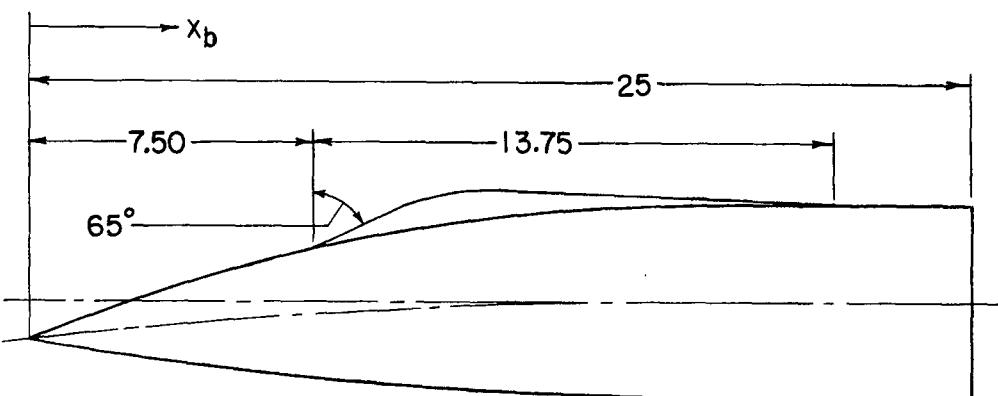
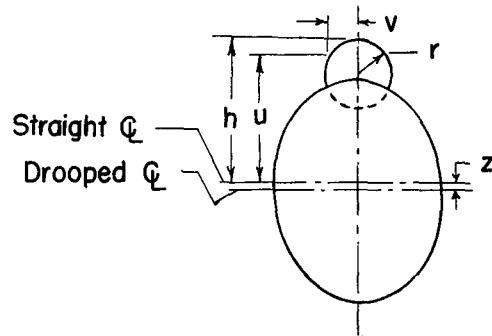
Note: Last entry at each x_b -station gives canopy-body intersection.

(d) Canopy 3.

Figure 1.- Continued.

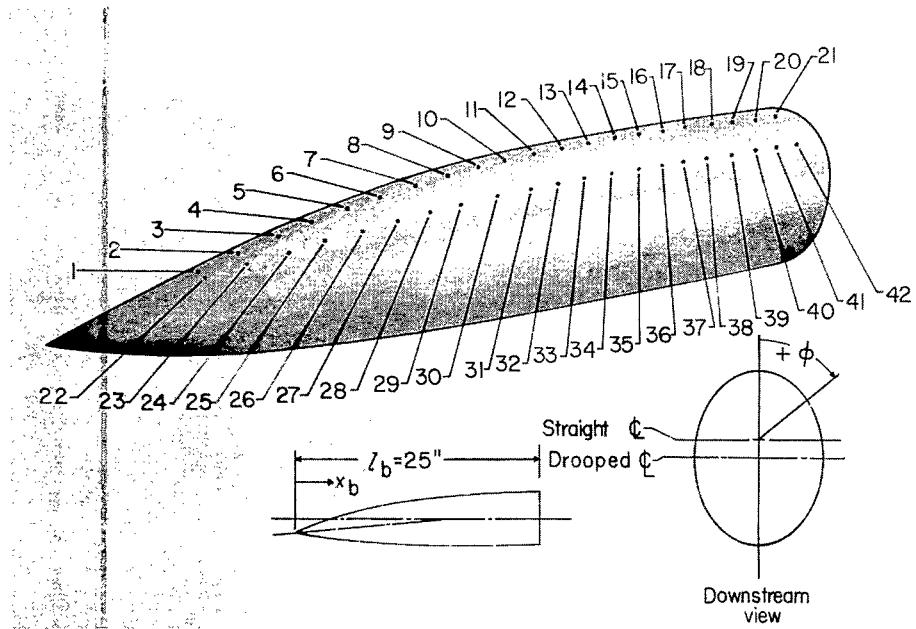
CANOPY FACE			
$x_b = 7.500$		$x_b = 8.750$	
v	u	v	u
0	1.395	0	1.952
.350	1.395	.350	1.952
.375	1.379	.400	1.922
.400	1.361	.450	1.880
.425	1.351	.500	1.823
.450	1.320	.550	1.750
.475	1.297	.600	1.643
.500	1.274	.625	1.575
.525	1.249	.650	1.500
.550	1.229	.673	1.425

CANOPY BODY		
x_b	h	r
10.000	2.514	0.772
11.250	2.833	.758
12.500	2.882	.738
13.750	2.827	.683
15.000	2.773	.629
16.250	2.718	.574
17.500	2.664	.520
19.375	2.582	.438
21.250	2.500	.356



(e) Canopy 4.

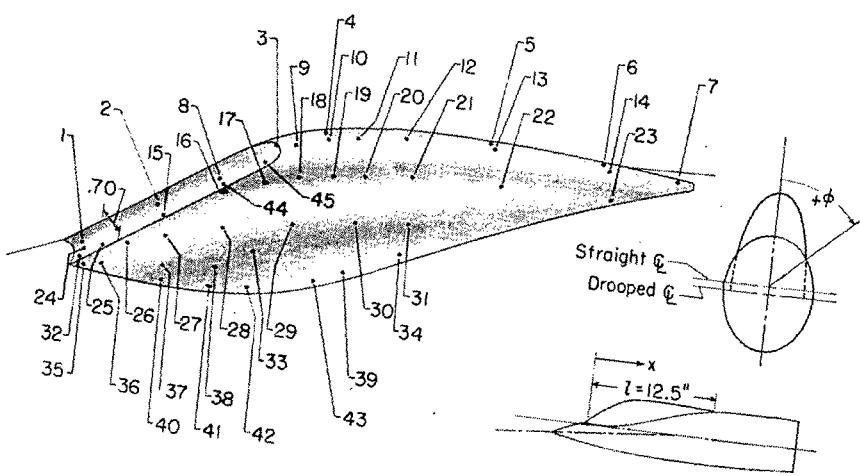
Figure 1.- Concluded.



(a) Fuselage forebody alone.

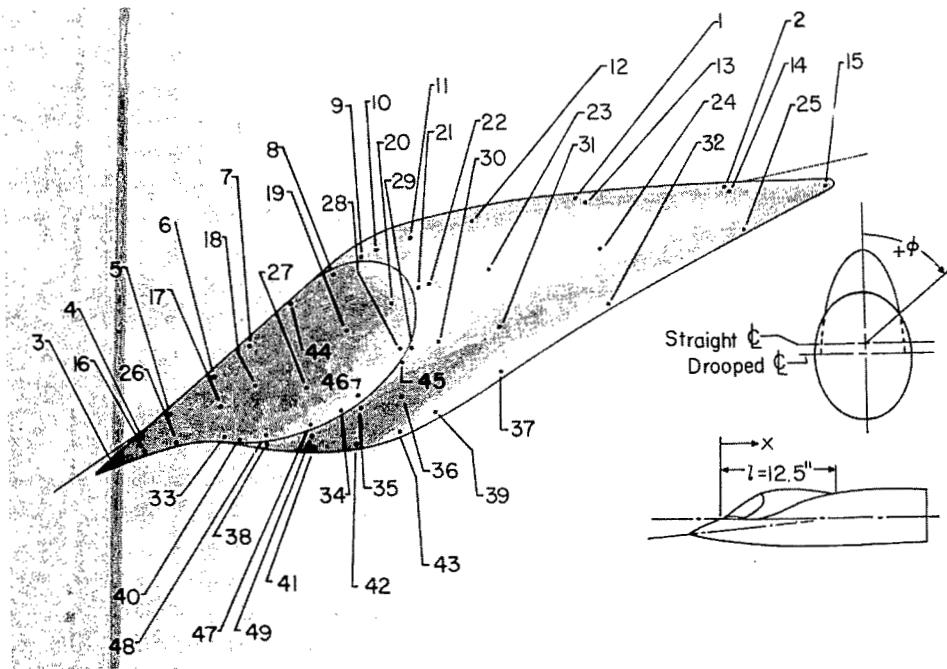
Figure 2.- Location of pressure orifices for the five models tested.

Orifice location					
Orifice number	Longitudinal station, x_b/b	Radial station, ϕ , deg	Orifice number	Longitudinal station, x_b/b	Radial station, ϕ , deg
1	0.160	0	22	0.160	30
2	.200	0	23	.200	30
3	.240	0	24	.240	30
4	.280	0	25	.280	30
5	.320	0	26	.320	30
6	.360	0	27	.360	30
7	.400	0	28	.400	30
8	.440	0	29	.440	30
9	.480	0	30	.480	30
10	.520	0	31	.520	30
11	.560	0	32	.560	30
12	.600	0	33	.600	30
13	.640	0	34	.640	30
14	.680	0	35	.680	30
15	.720	0	36	.720	30
16	.760	0	37	.760	30
17	.800	0	38	.800	30
18	.840	0	39	.840	30
19	.880	0	40	.880	30
20	.920	0	41	.920	30
21	.960	0	42	.960	30



Orifice location					
Orifice number	Longitudinal station, x/l	Radial station, φ, deg	Orifice number	Longitudinal station, x/l	Radial station, φ, deg
1	0.006		24	0.004	30
2	.092	0	25	.017	30
3	.280	0	26	.046	30
4	.311	0	27	.092	30
5	.600	0	28	.164	30
6	.828	0	29	.260	30
7	.988	0	30	.356	30
8	.164	3	31	.440	30
9	.260	3	32	.000	45
10	.311	3	33	.216	45
11	.356	3	34	.440	45
12	.440	3	35	.001	57.5
13	.600	3	36	.017	57.5
14	.828	3	37	.092	57.5
15	.092	15	38	.164	57.5
16	.164	15	39	.356	57.5
17	.216	15	40	.092	80
18	.260	15	41	.164	80.5
19	.311	15	42	.216	79
20	.356	15	43	.311	66
21	.440	15	44	.164	10
22	.600	15	45	.216	7
23	.828	15			

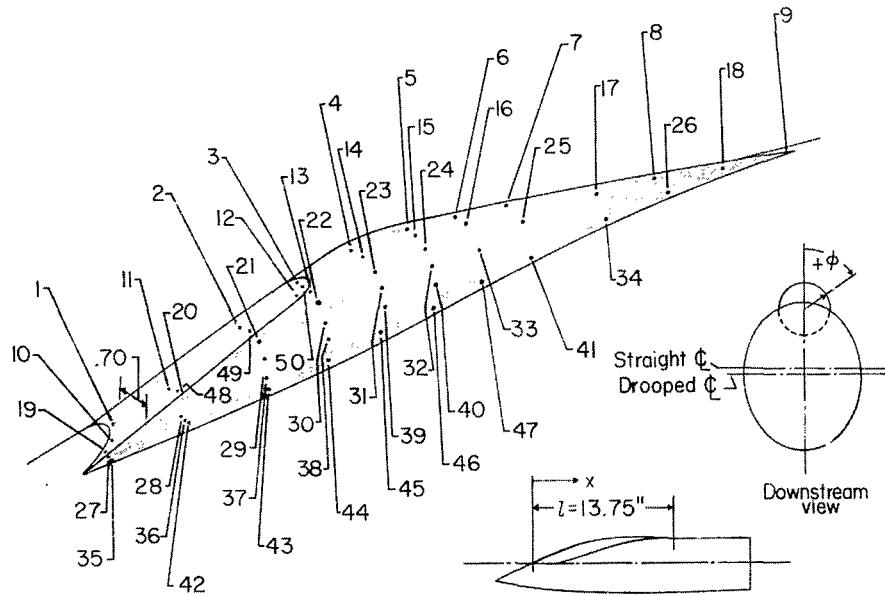
(b) Large forward-located flat-windshield canopy 1.
Figure 2.- Continued.



(c) Large forward-located vee-windshield canopy 2.

Figure 2.- Continued.

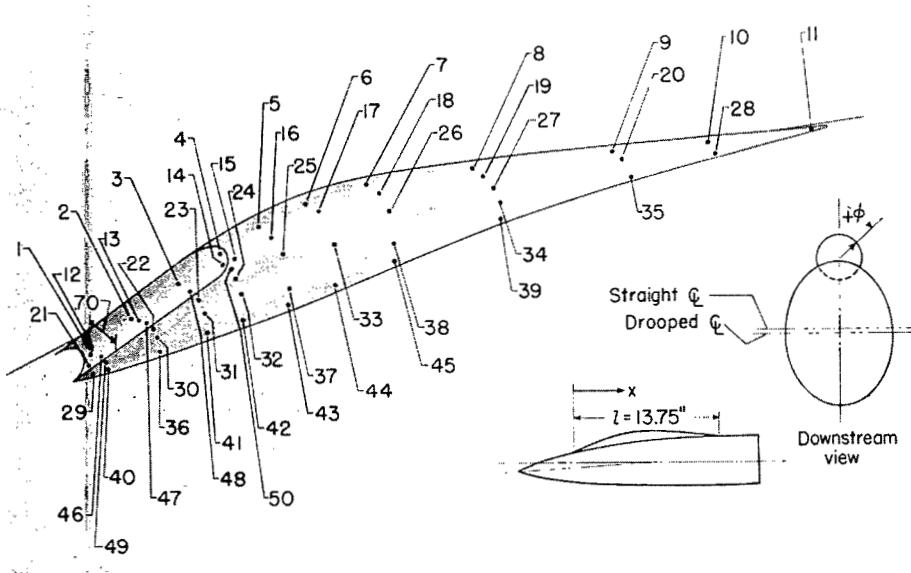
Orifice location					
Orifice number	Longitudinal station, x/l	Radial station, ϕ , deg	Orifice number	Longitudinal station, x/l	Radial station, ϕ , deg
1	0.600	0	26	0.076	30
2	.828	0	27	.212	30
3	.008	3	28	.311	30
4	.044	3	29	.324	30
5	.076	3	30	.356	30
6	.124	3	31	.440	30
7	.164	3	32	.600	30
8	.260	3	33	.124	45
9	.295	3	34	.214	45
10	.311	3	35	.260	45
11	.356	3	36	.311	45
12	.440	3	37	.440	45
13	.600	3	38	.164	57.5
14	.828	3	39	.356	57.5
15	.988	3	40	.140	53
16	.044	15	41	.212	62
17	.124	15	42	.260	68
18	.164	15	43	.311	66
19	.260	15	44	.212	1
20	.311	15	45	.311	34
21	.345	15	46	.260	41
22	.356	15	47	.212	48
23	.440	15	48	.164	51
24	.600	15	49	.212	51
25	.828	15			



(d) Small forward-located flat-windshield canopy 3.

Figure 2.- Continued.

Orifice location					
Orifice number	Longitudinal station, x/l	Radial station, ϕ , deg	Orifice number	Longitudinal station, x/l	Radial station, ϕ , deg
1	0.004	0	26	0.760	40
2	.164	0	27	-.015	60
3	.239	0	28	.065	60
4	.309	0	29	.164	60
5	.382	0	30	.239	60
6	.455	0	31	.309	60
7	.527	0	32	.382	60
8	.760	0	33	.455	60
9	.993	0	34	.655	60
10	.000	20	35	-.015	80
11	.065	20	36	.065	80
12	.223	20	37	.164	80
13	.239	20	38	.239	80
14	.309	20	39	.309	80
15	.382	20	40	.382	80
16	.455	20	41	.527	80
17	.655	20	42	.065	96
18	.869	20	43	.164	104
19	-.015	40	44	.239	100
20	.065	40	45	.309	102
21	.164	40	46	.382	105
22	.239	40	47	.455	102
23	.309	40	48	.065	32
24	.382	40	49	.164	23
25	.527	40	50	.239	11



Orifice location					
Orifice number	Longitudinal station, x/l	Radial station, ϕ , deg	Orifice number	Longitudinal station, x/l	Radial station, ϕ , deg
1	0.004	0	26	0.324	43
2	.052	0	27	.467	43
3	.102	0	28	.804	43
4	.149	0	29	-.011	60
5	.193	0	30	.052	60
6	.249	0	31	.102	60
7	.324	0	32	.142	60
8	.467	0	33	.249	60
9	.662	0	34	.467	60
10	.804	0	35	.662	60
11	.985	0	36	.052	80
12	.000	20	37	.193	80
13	.052	20	38	.324	80
14	.142	20	39	.467	80
15	.149	20	40	.004	66
16	.193	20	41	.102	88
17	.249	20	42	.142	91
18	.324	20	43	.193	98
19	.467	20	44	.249	102
20	.662	20	45	.324	100
21	-.011	43	46	.004	40
22	.052	43	47	.052	32
23	.102	43	48	.102	26
24	.142	43	49	.004	48
25	.193	43	50	.142	29

(e) Small rearward-located flat-windshield canopy 4.

Figure 2.- Concluded.

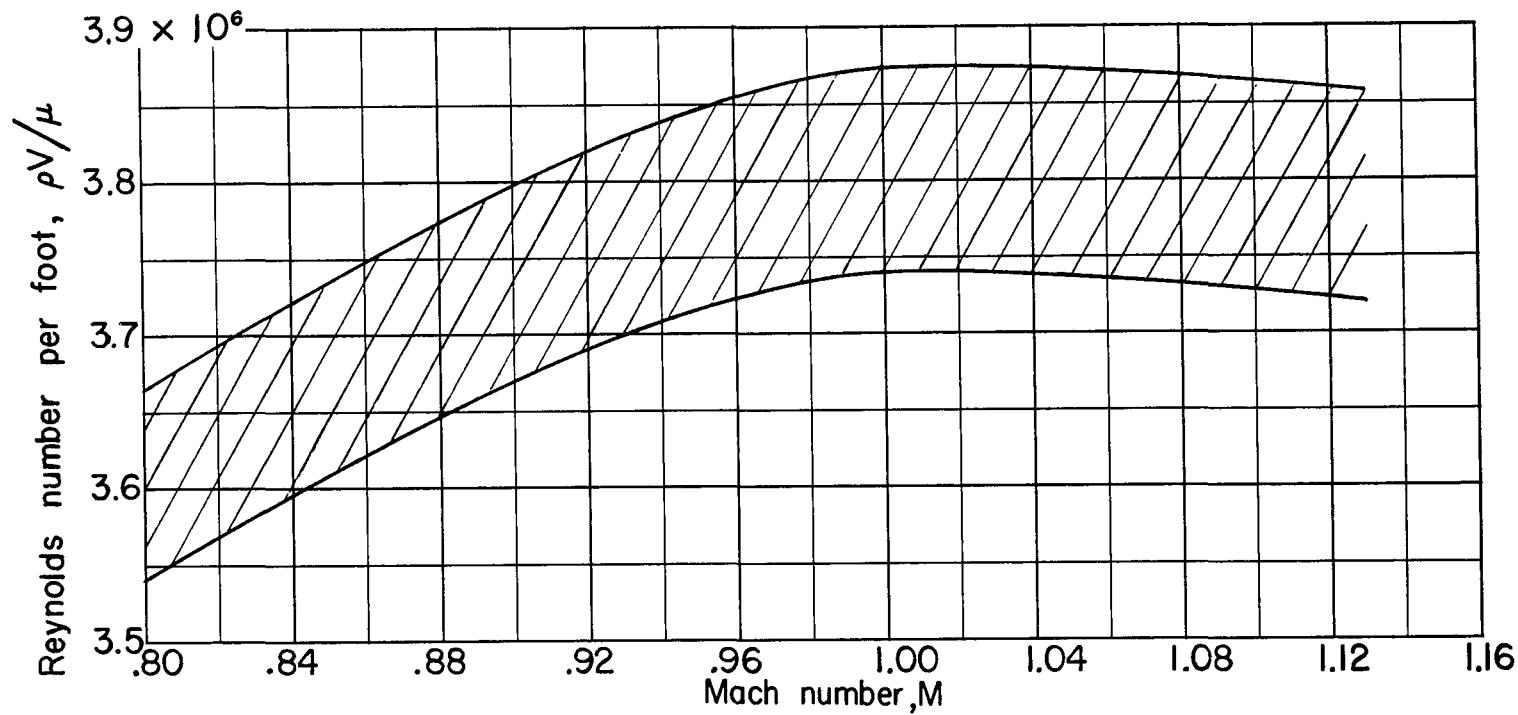


Figure 3.- Variation of Reynolds number with Mach number.

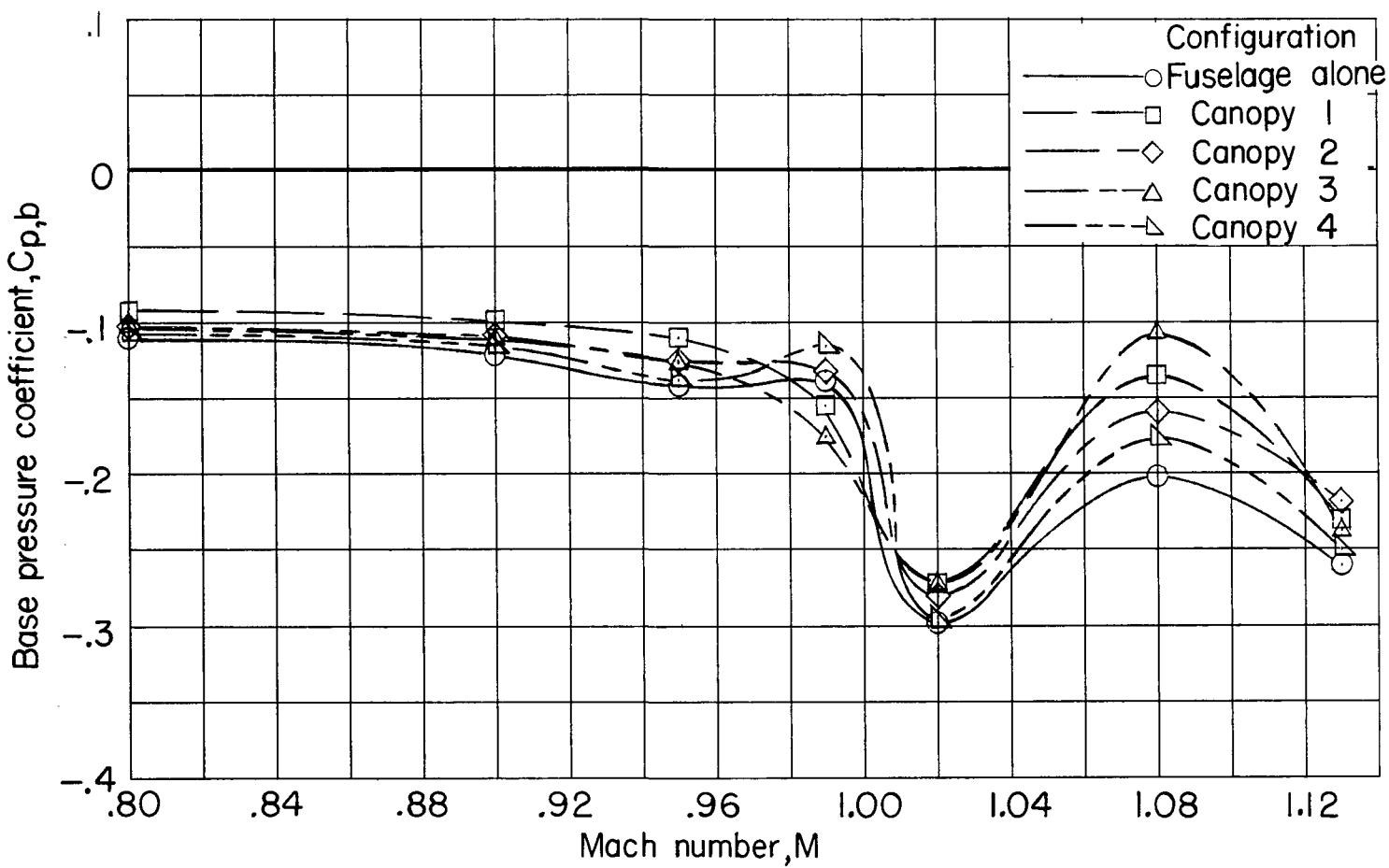
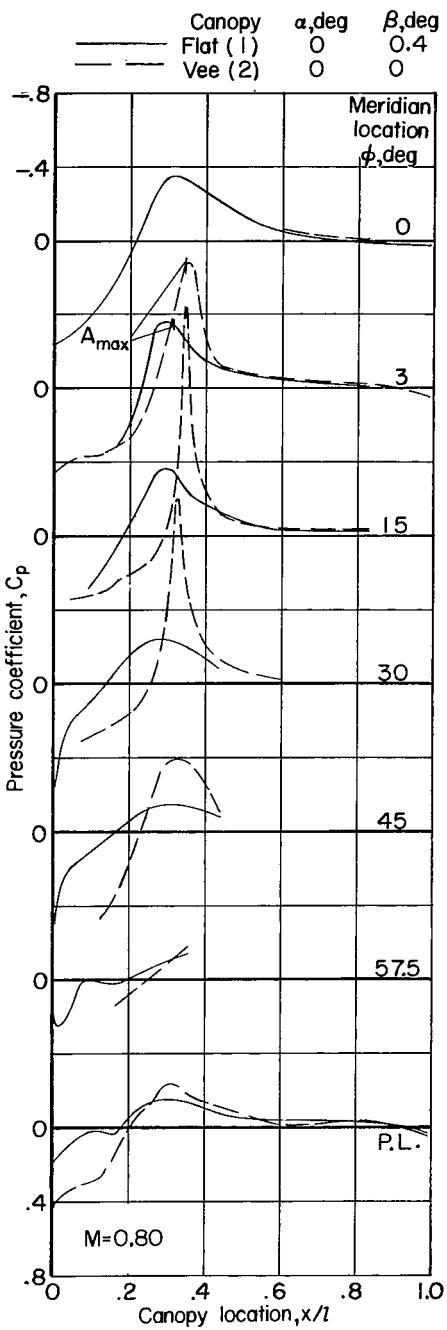
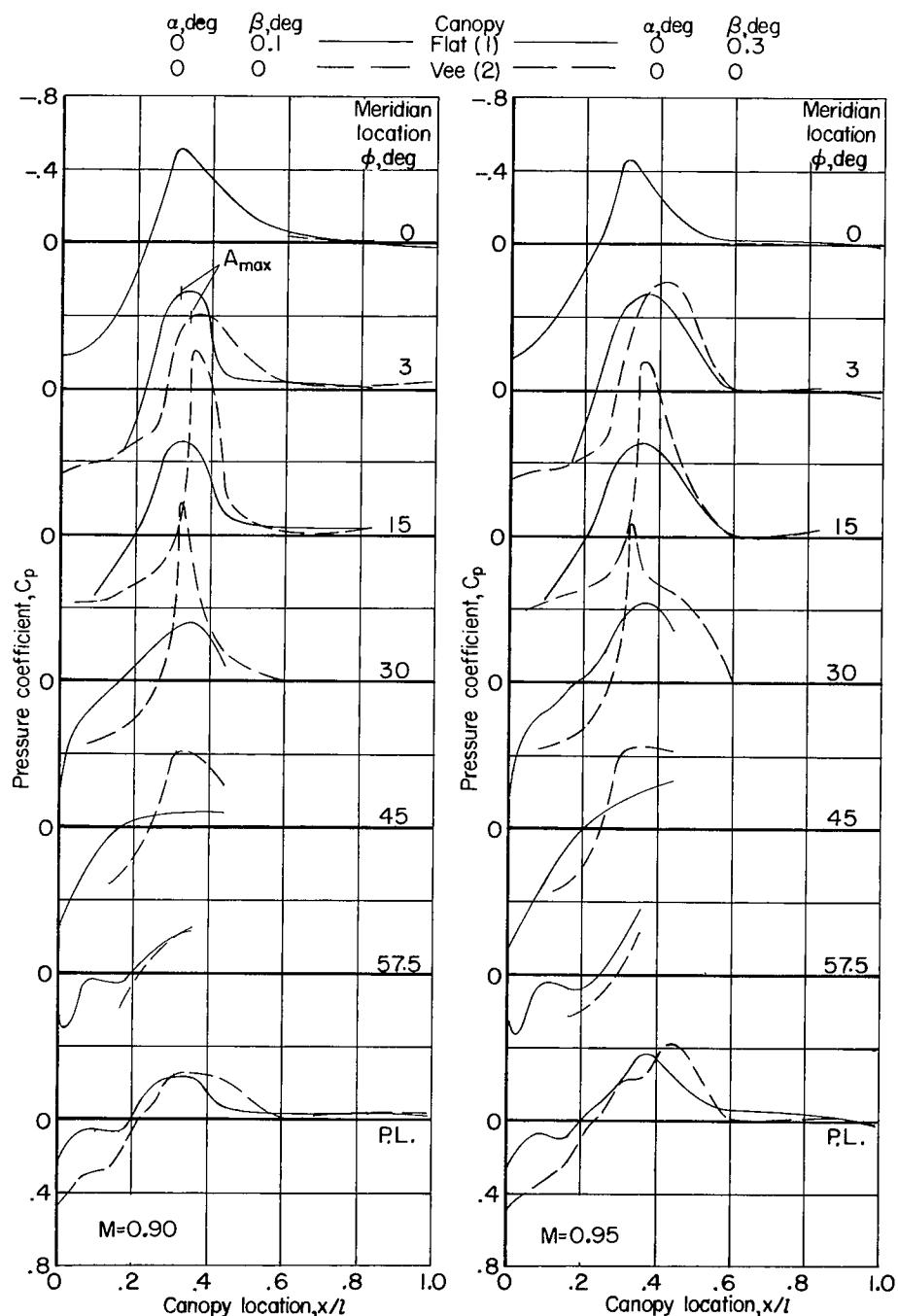


Figure 4.- Variation of base-pressure coefficient with Mach number.
 $\beta = 0^\circ$; $\alpha = 0^\circ$ (approx.).



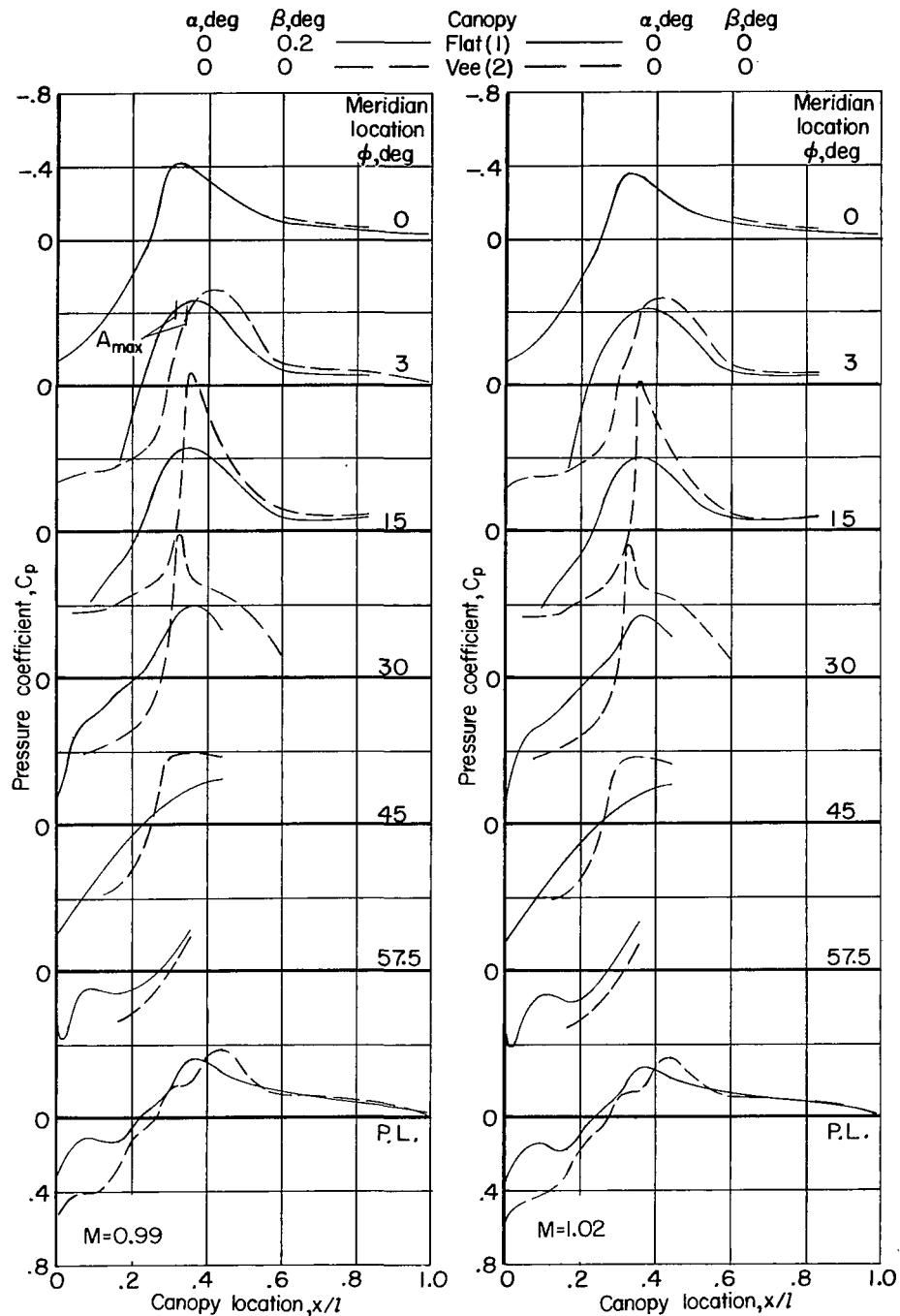
(a) $\alpha = 0^\circ$; $\beta \approx 0^\circ$.

Figure 5.- Effect of windshield shape on pressure-coefficient distributions on large forward-located canopies 1 and 2.



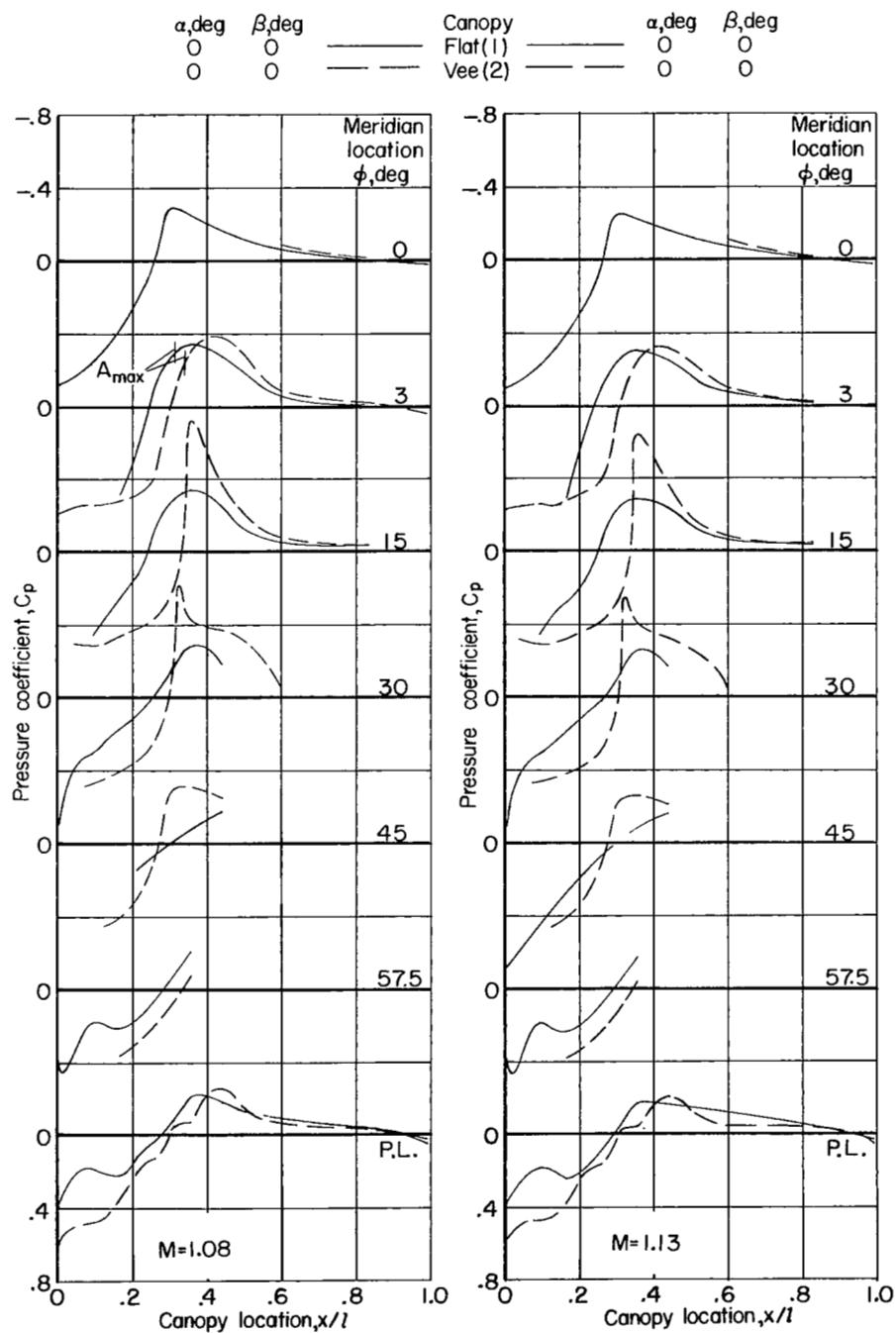
(a) $\alpha = 0^\circ$; $\beta \approx 0^\circ$. Continued.

Figure 5.- Continued.



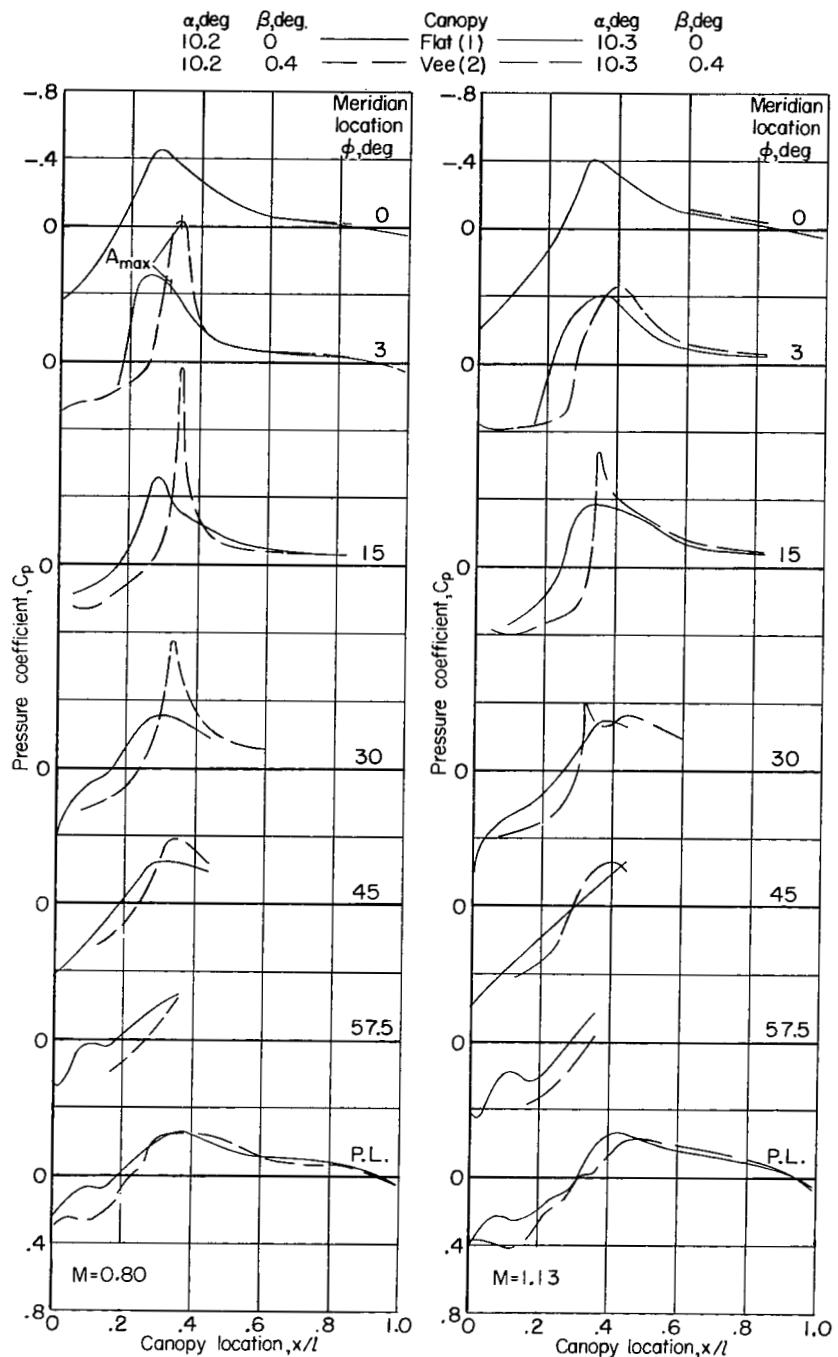
(a) $\alpha = 0^\circ$; $\beta \approx 0^\circ$. Continued.

Figure 5.- Continued.



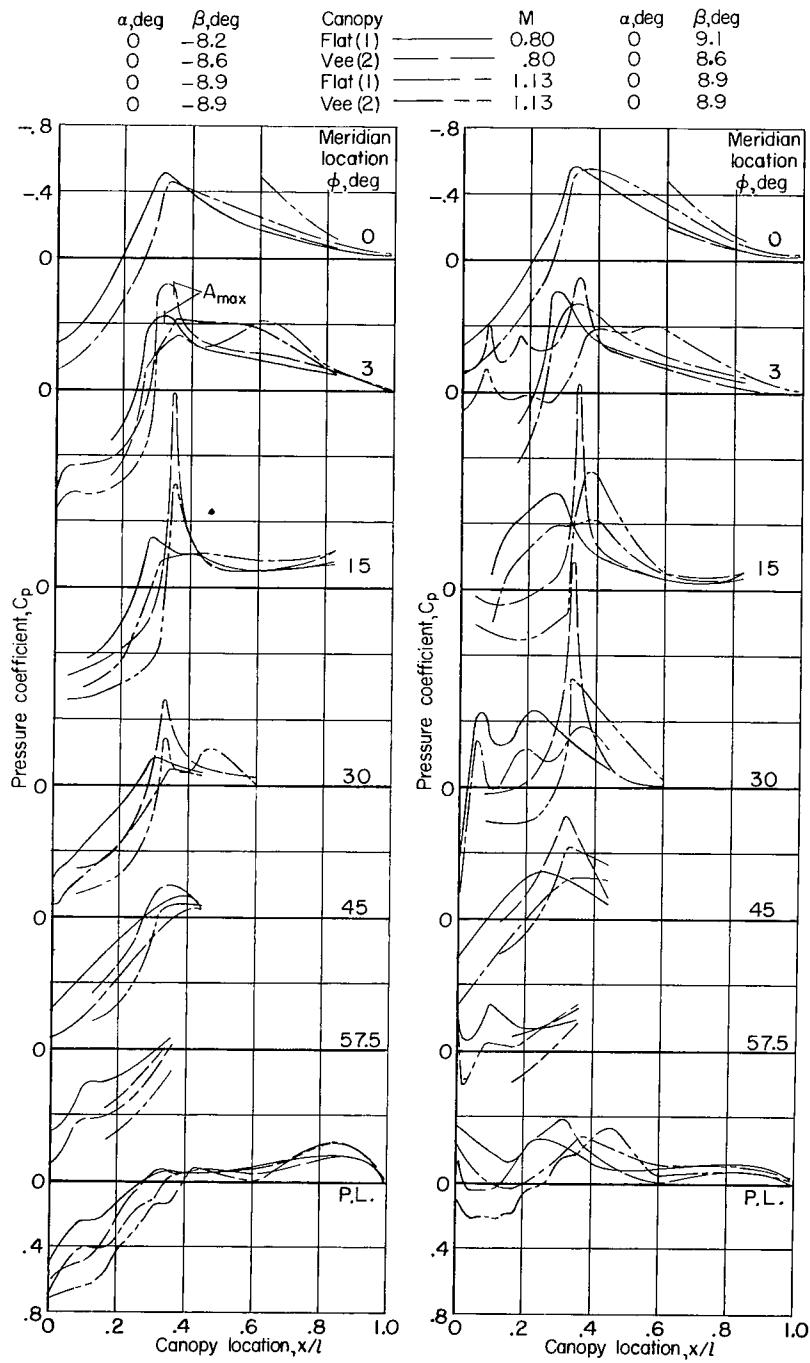
(a) $\alpha = 0^\circ$; $\beta \approx 0^\circ$. Concluded.

Figure 5.- Continued.



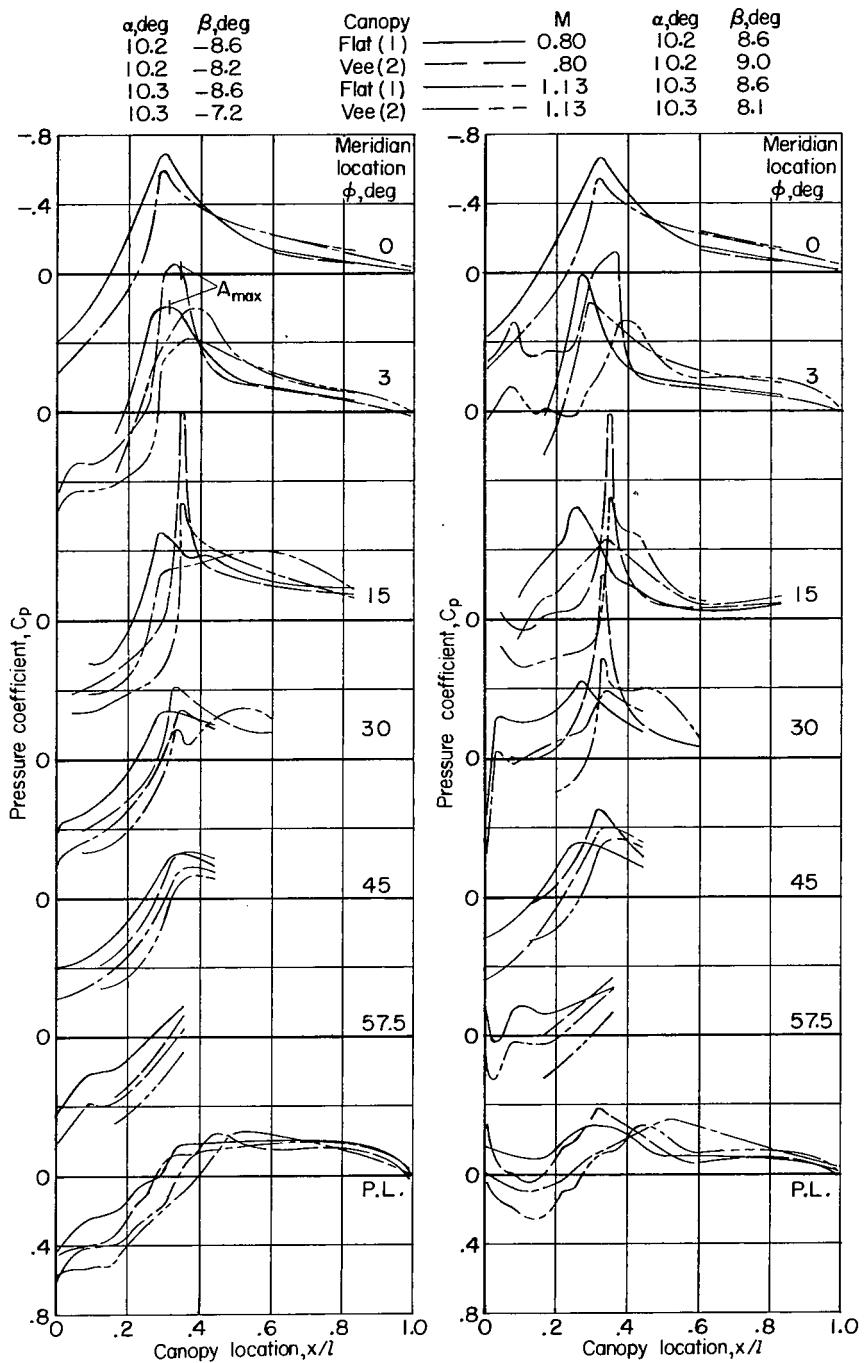
(b) $\alpha \approx 10^\circ$; $\beta \approx 0^\circ$.

Figure 5.- Continued.



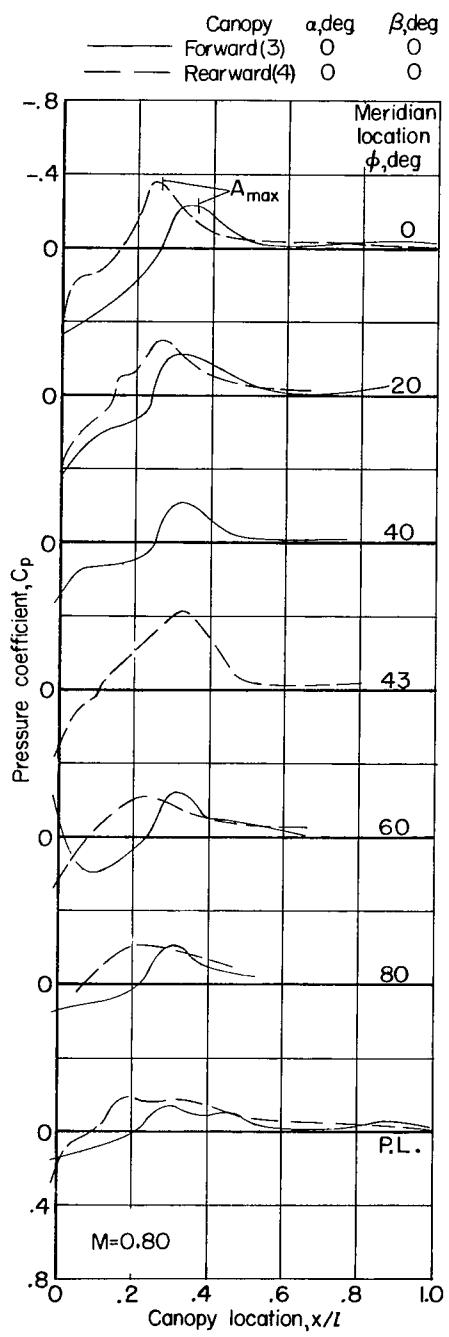
(c) $\alpha = 0^\circ$; $\beta \approx \pm 8^\circ$.

Figure 5.- Continued.



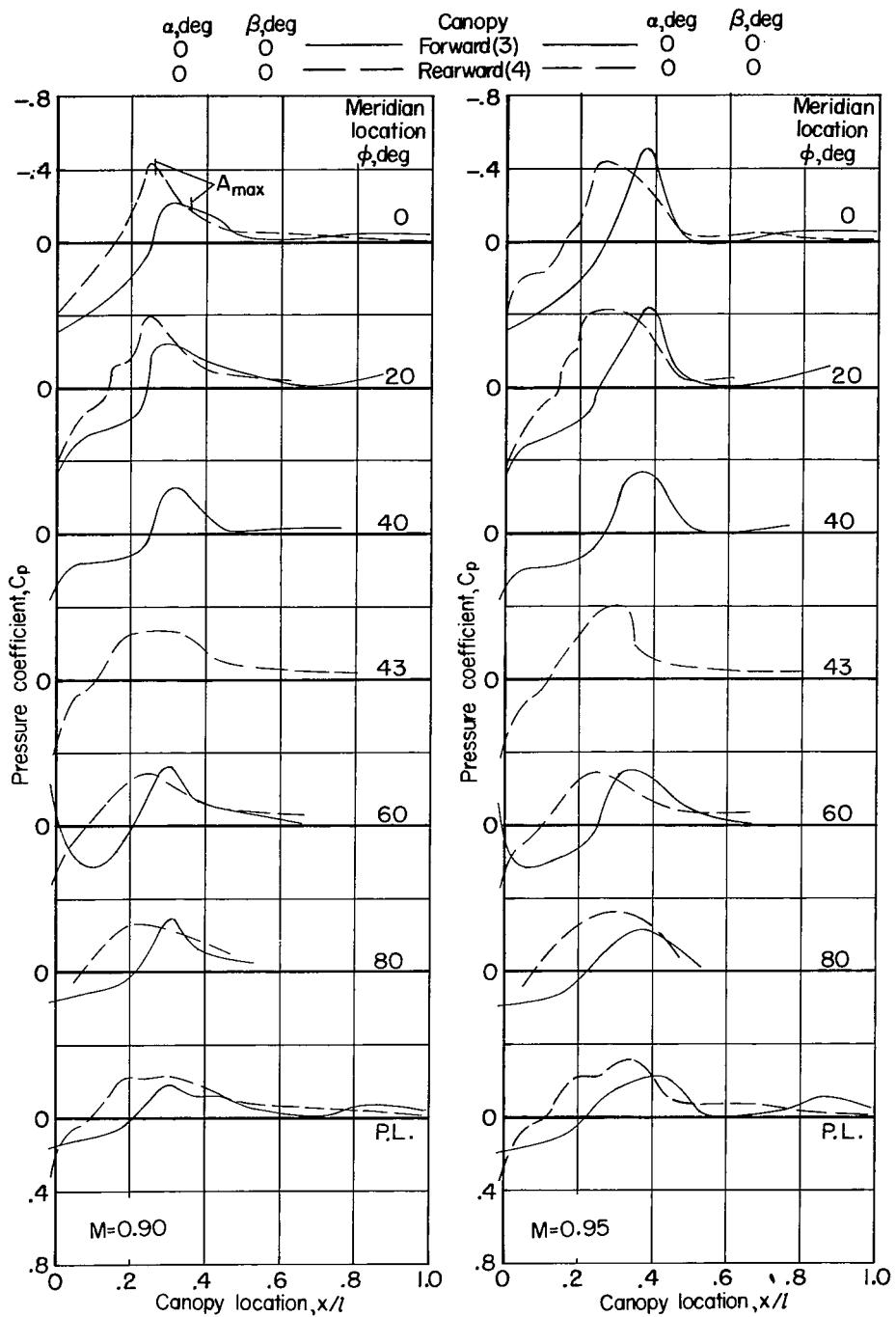
(a) $\alpha \approx 10^\circ$; $\beta \approx \pm 8^\circ$.

Figure 5.- Concluded.



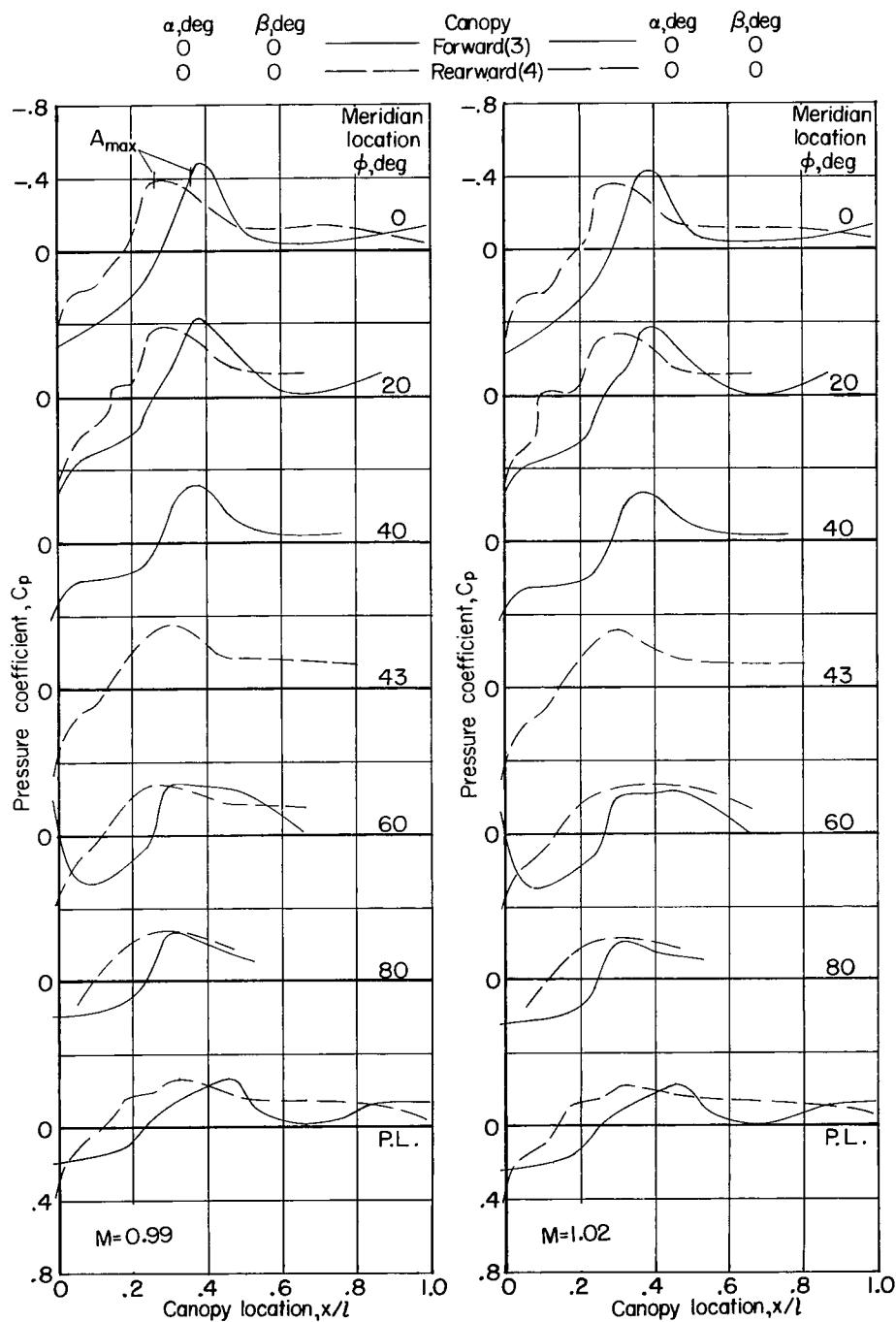
(a) $\alpha = 0^\circ$; $\beta = 0^\circ$.

Figure 6.- Pressure-coefficient distributions on small forward-located canopy 3 and rearward-located canopy 4.



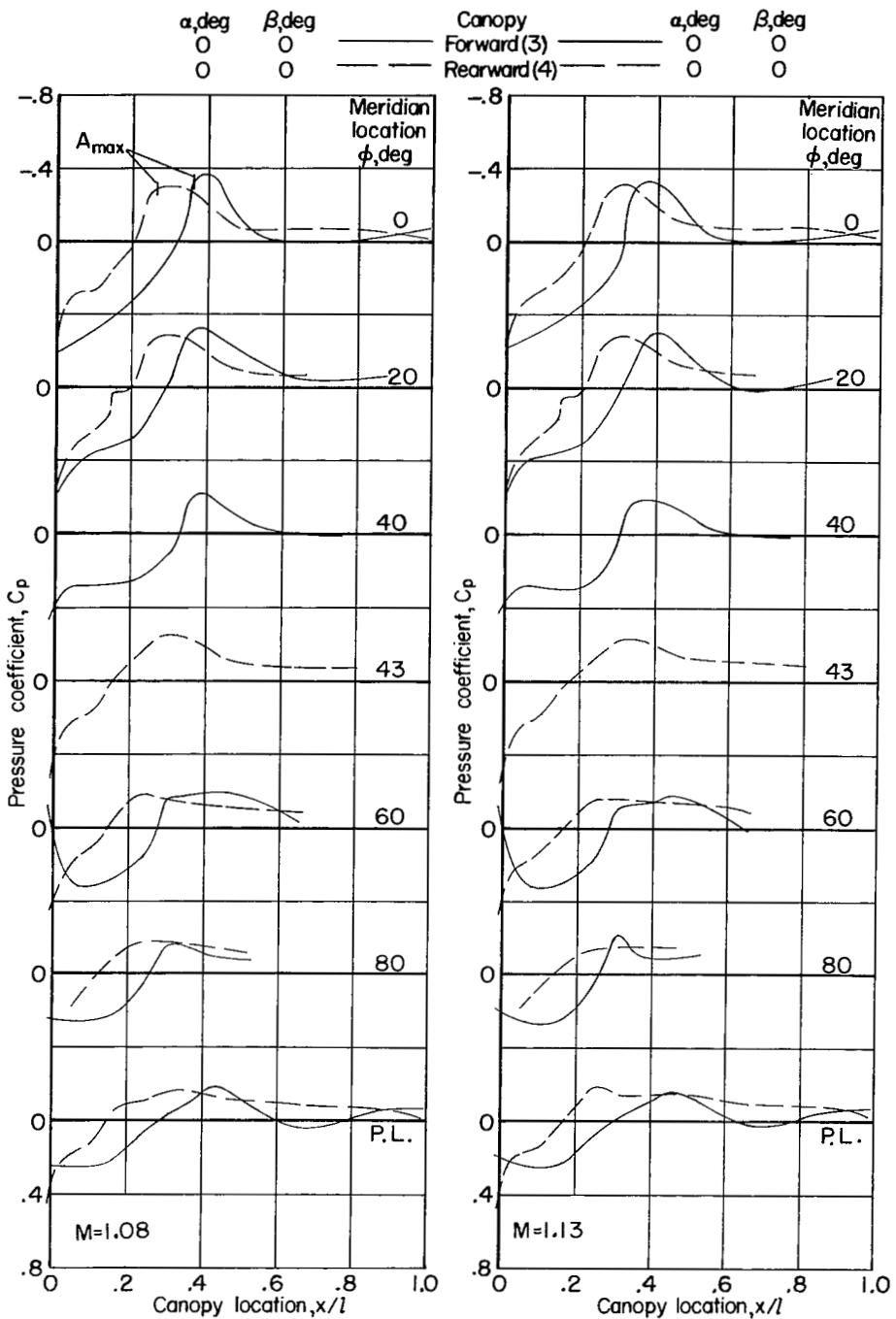
(a) $\alpha = 0^\circ$; $\beta = 0^\circ$. Continued.

Figure 6.- Continued.



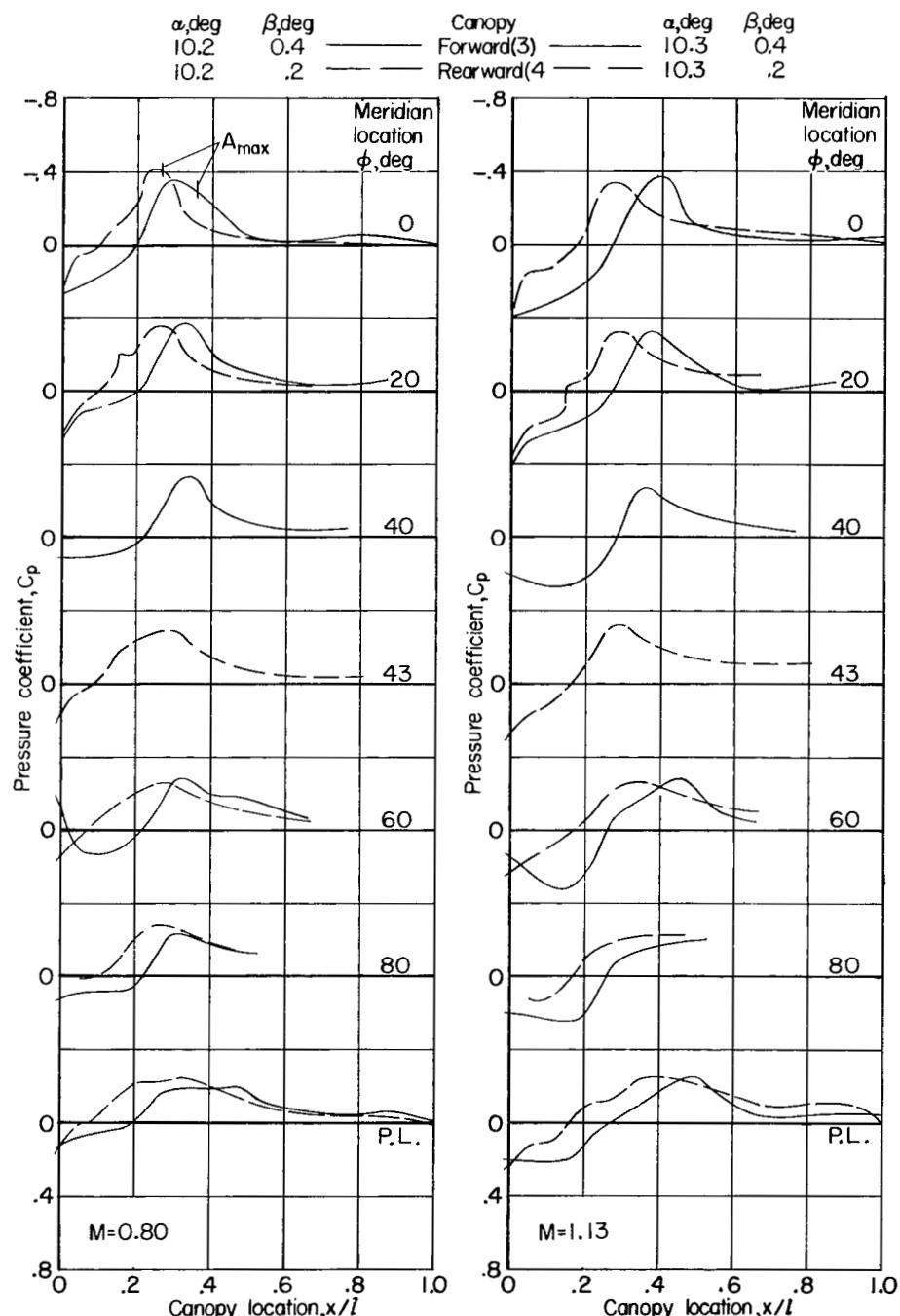
(a) $\alpha = 0^\circ$; $\beta = 0^\circ$. Continued.

Figure 6.- Continued.



(a) $\alpha = 0^\circ$; $\beta = 0^\circ$. Concluded.

Figure 6.-- Continued.



(b) $\alpha \approx 10^\circ$; $\beta \approx 0^\circ$.

Figure 6.- Continued.

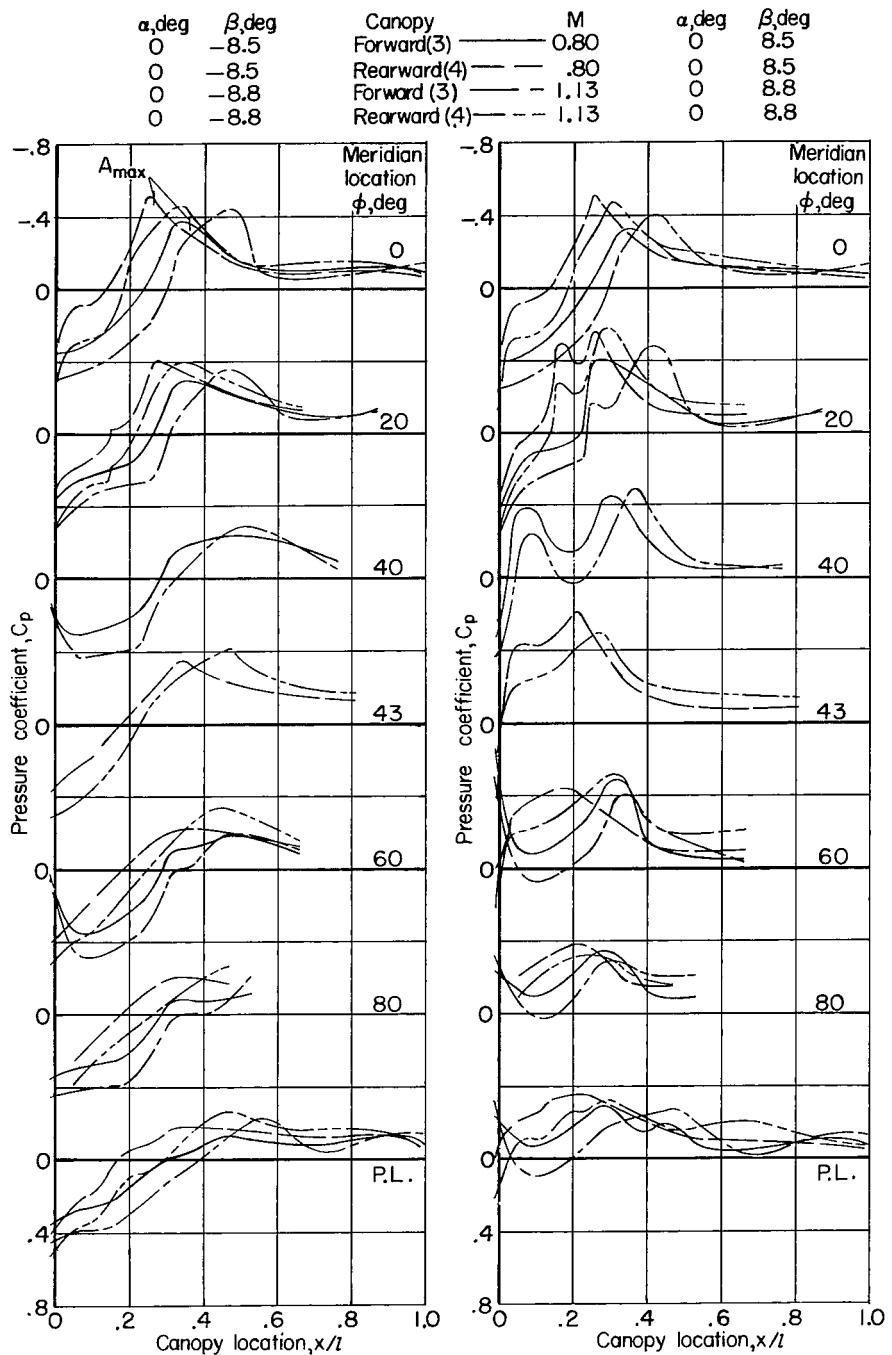
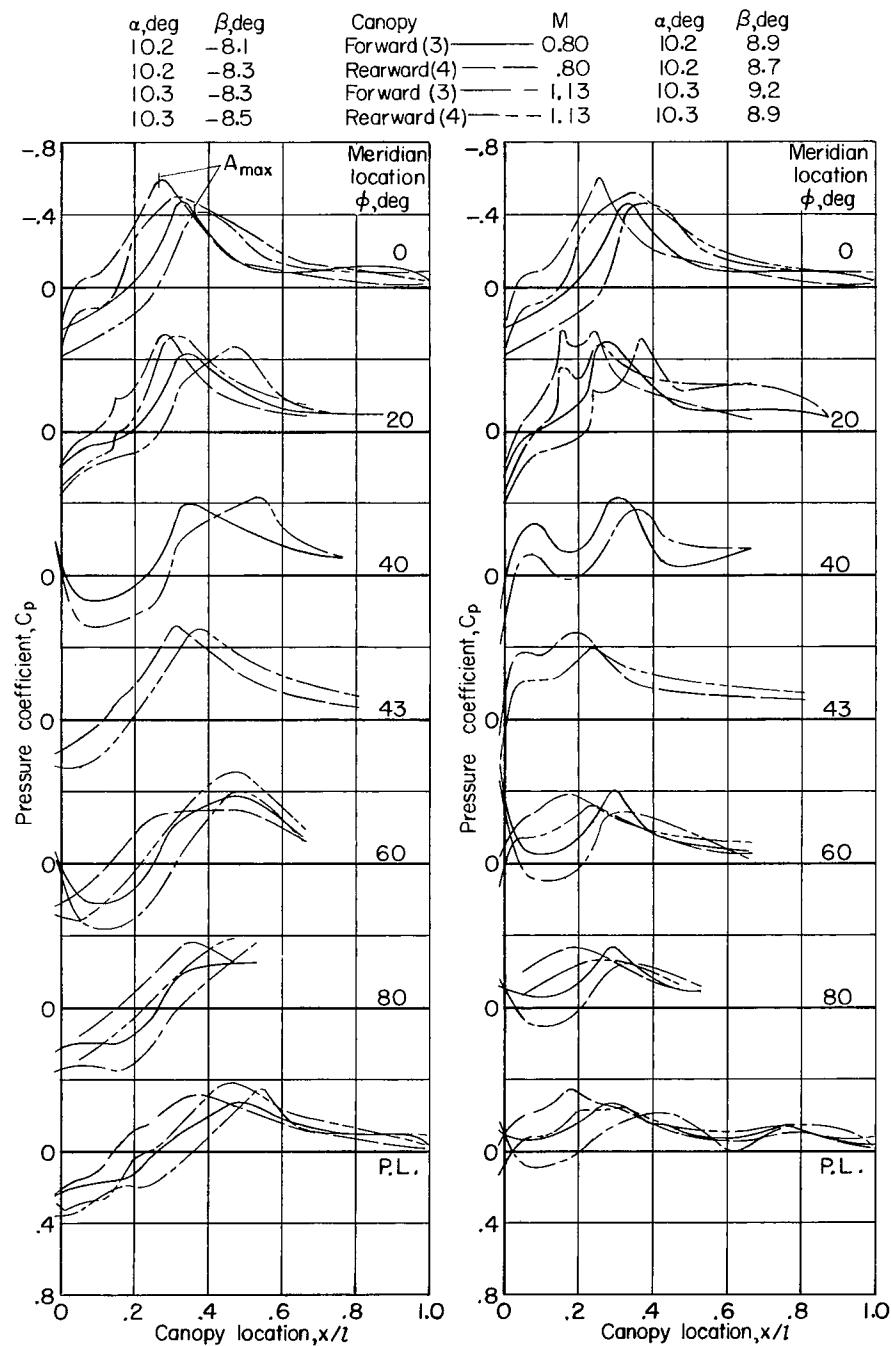
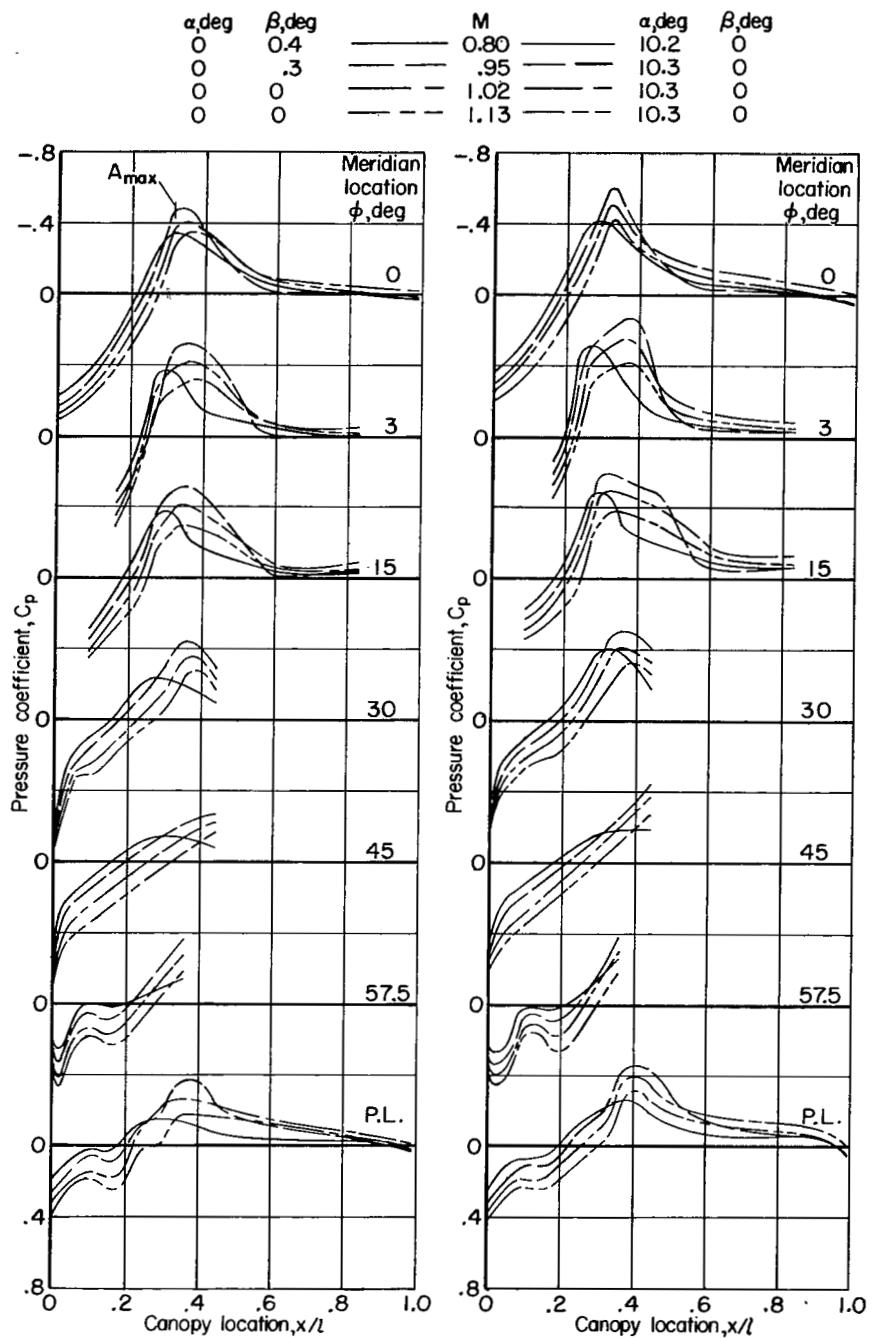
(c) $\alpha = 0^\circ$; $\beta \approx \pm 8^\circ$.

Figure 6.- Continued.



(d) $\alpha \approx 10^\circ$; $\beta \approx \pm 8^\circ$.

Figure 6.- Concluded.



(a) Canopy 1.

Figure 7.- Effect of Mach number on pressure-coefficient distributions for all canopies and fuselage alone.

[REDACTED]

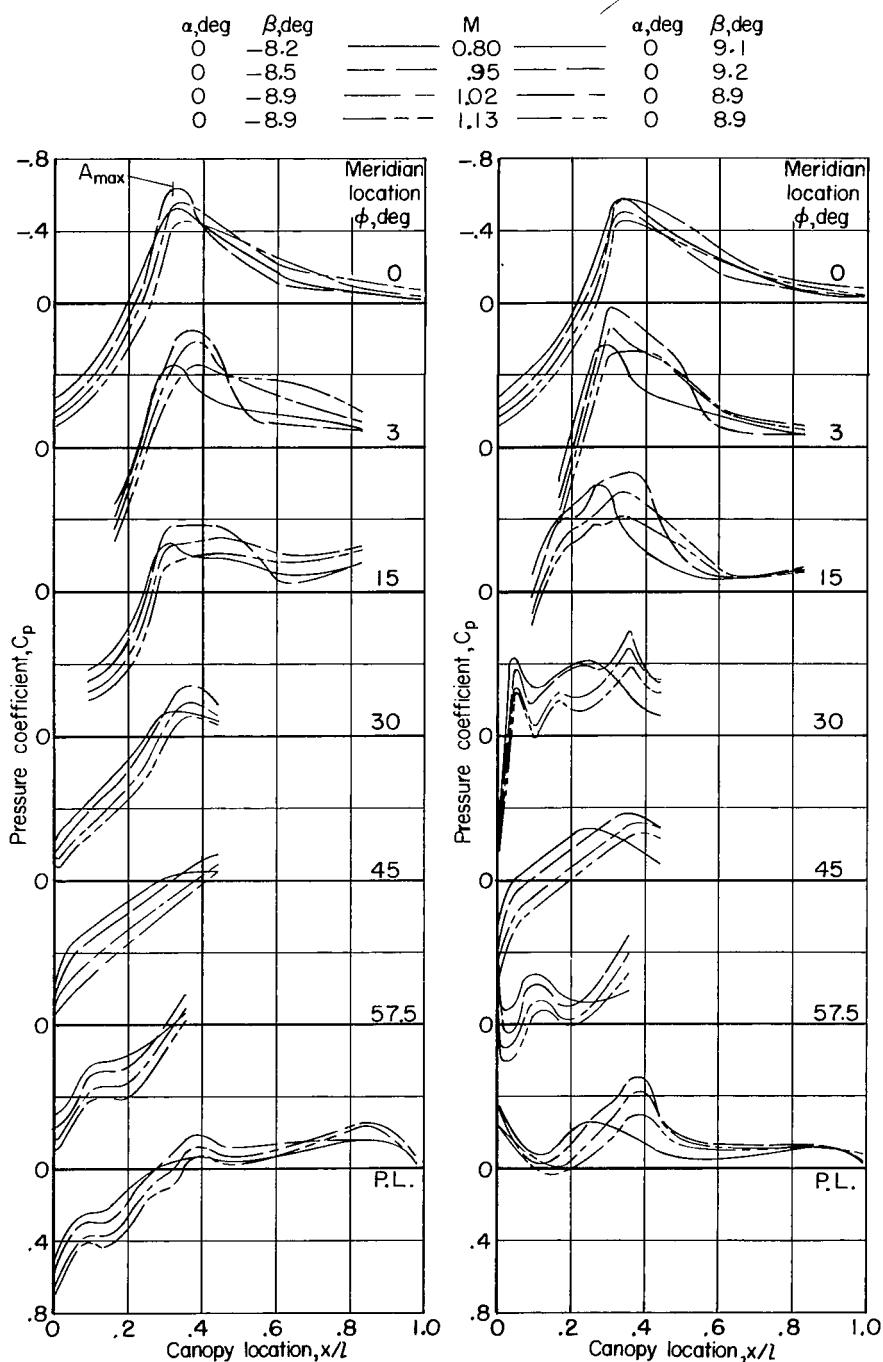
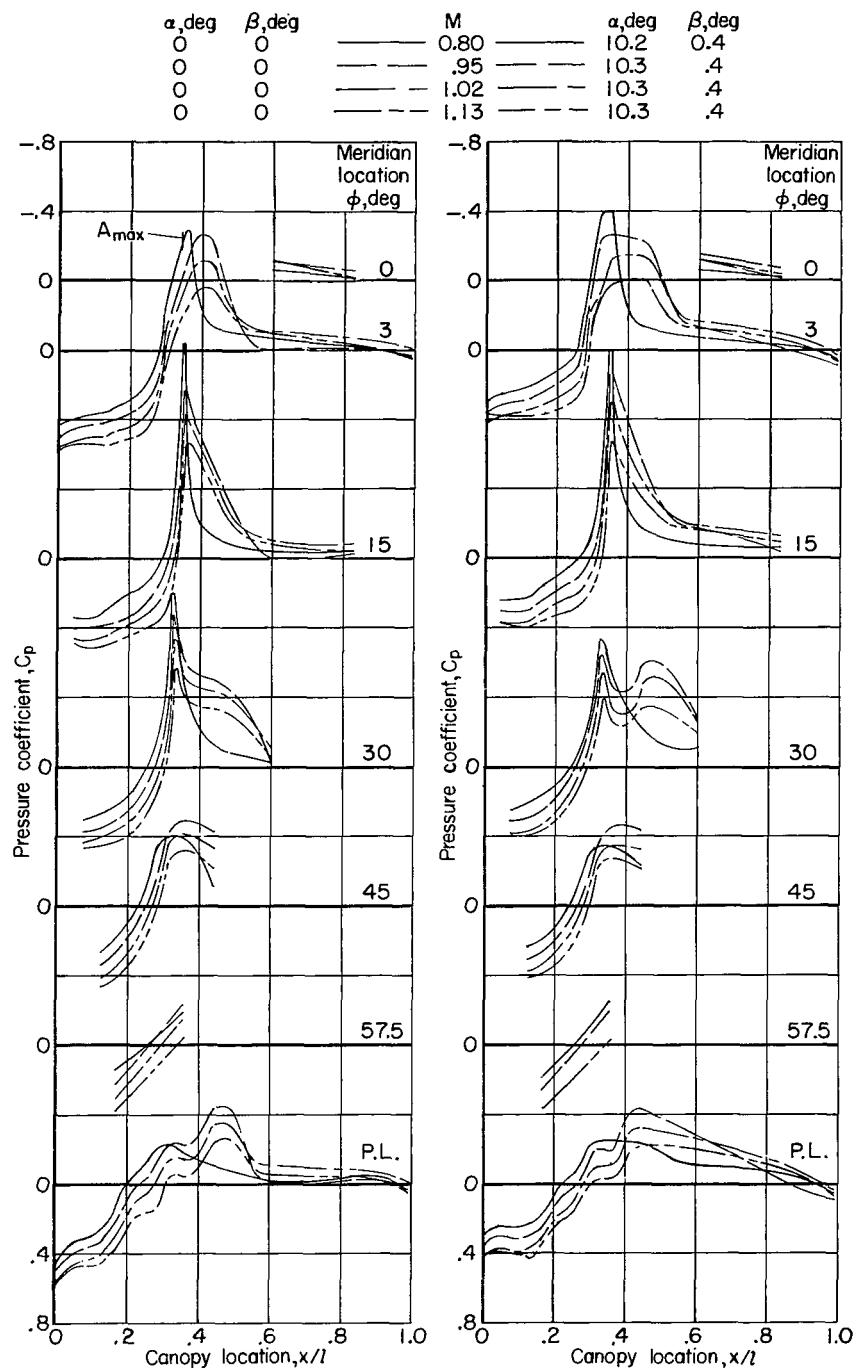
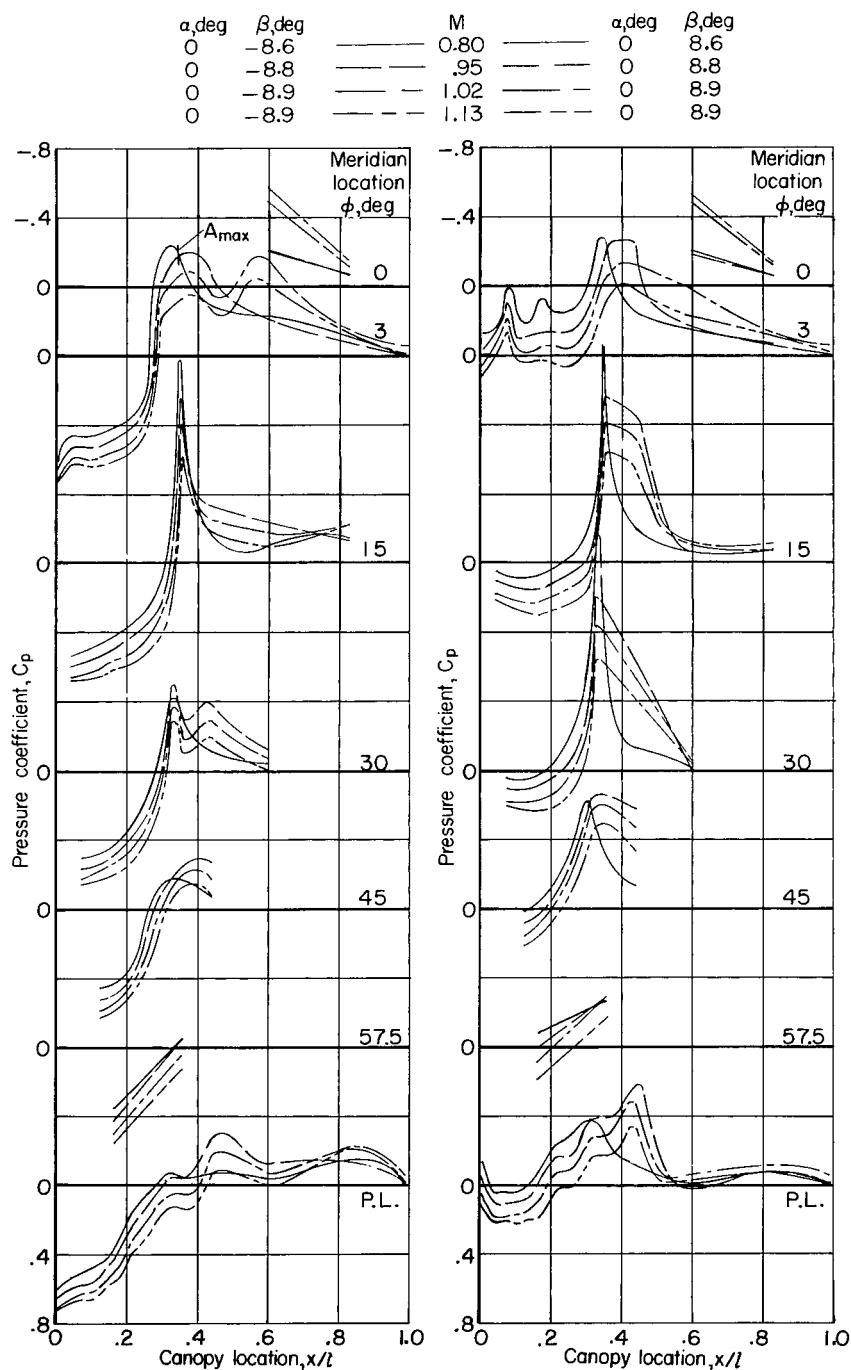


Figure 7.- Continued.



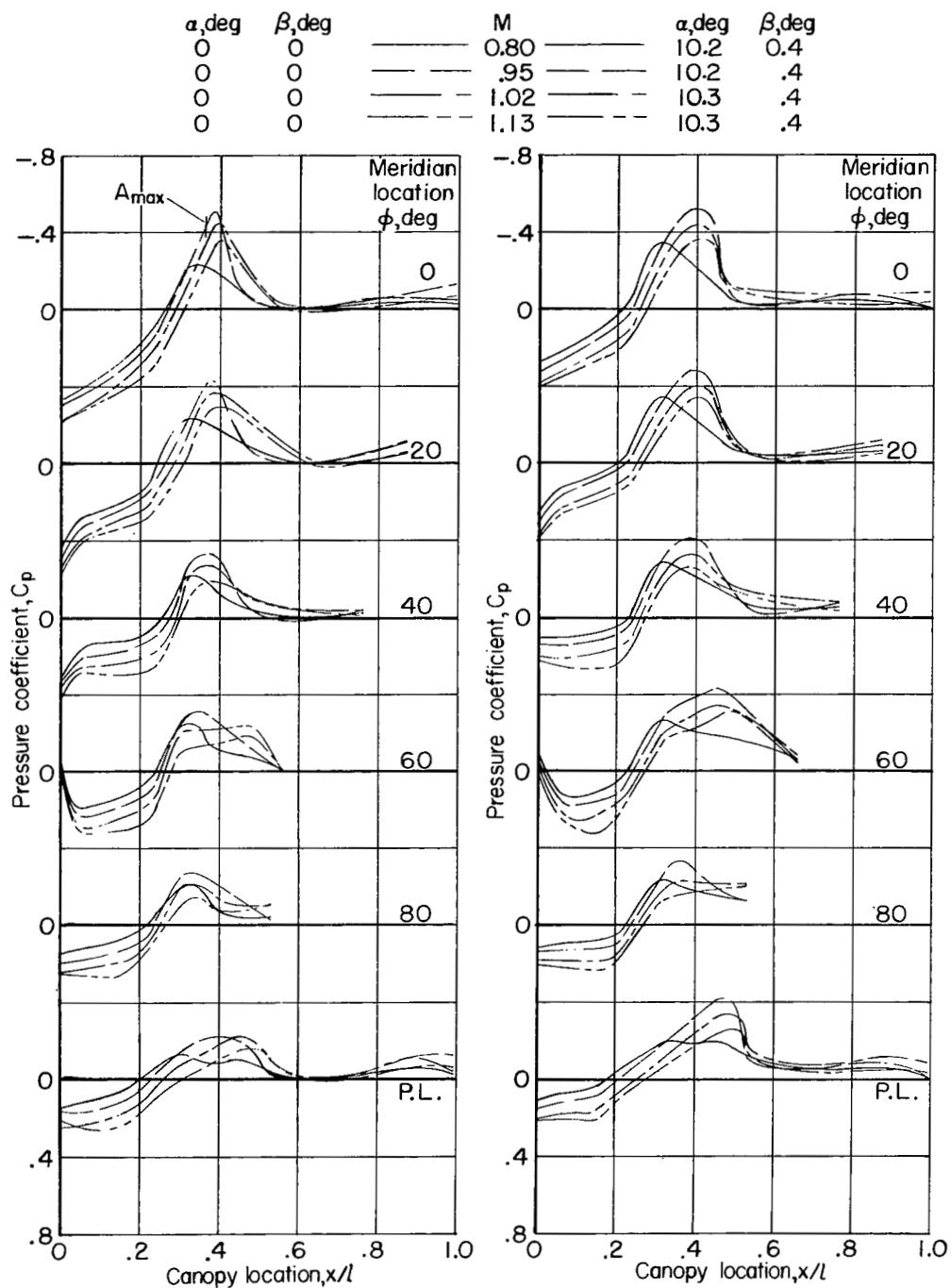
(b) Canopy 2.

Figure 7.- Continued.



(b) Canopy 2. Concluded.

Figure 7.- Continued.



(c) Canopy 3.

Figure 7.- Continued.

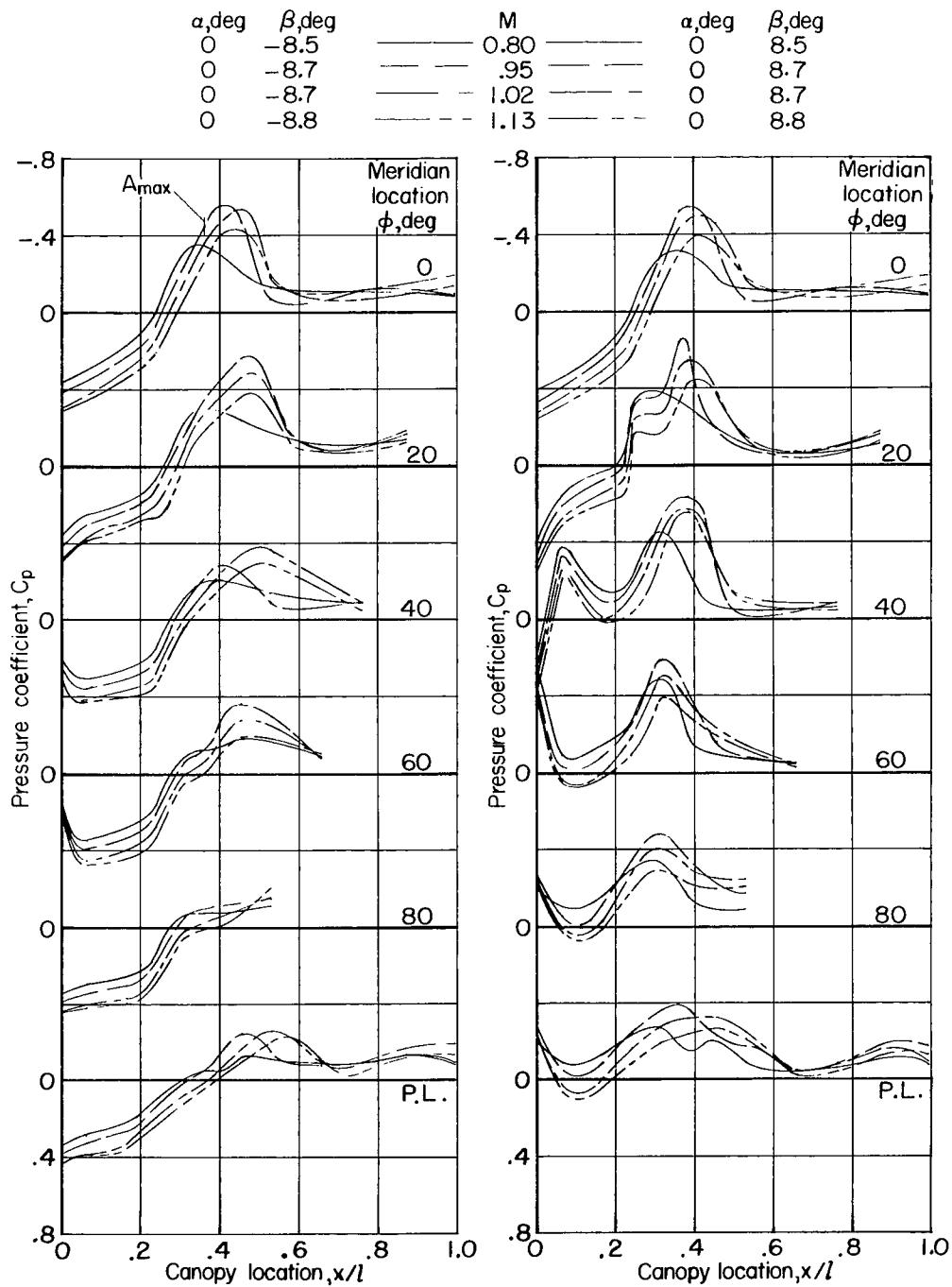
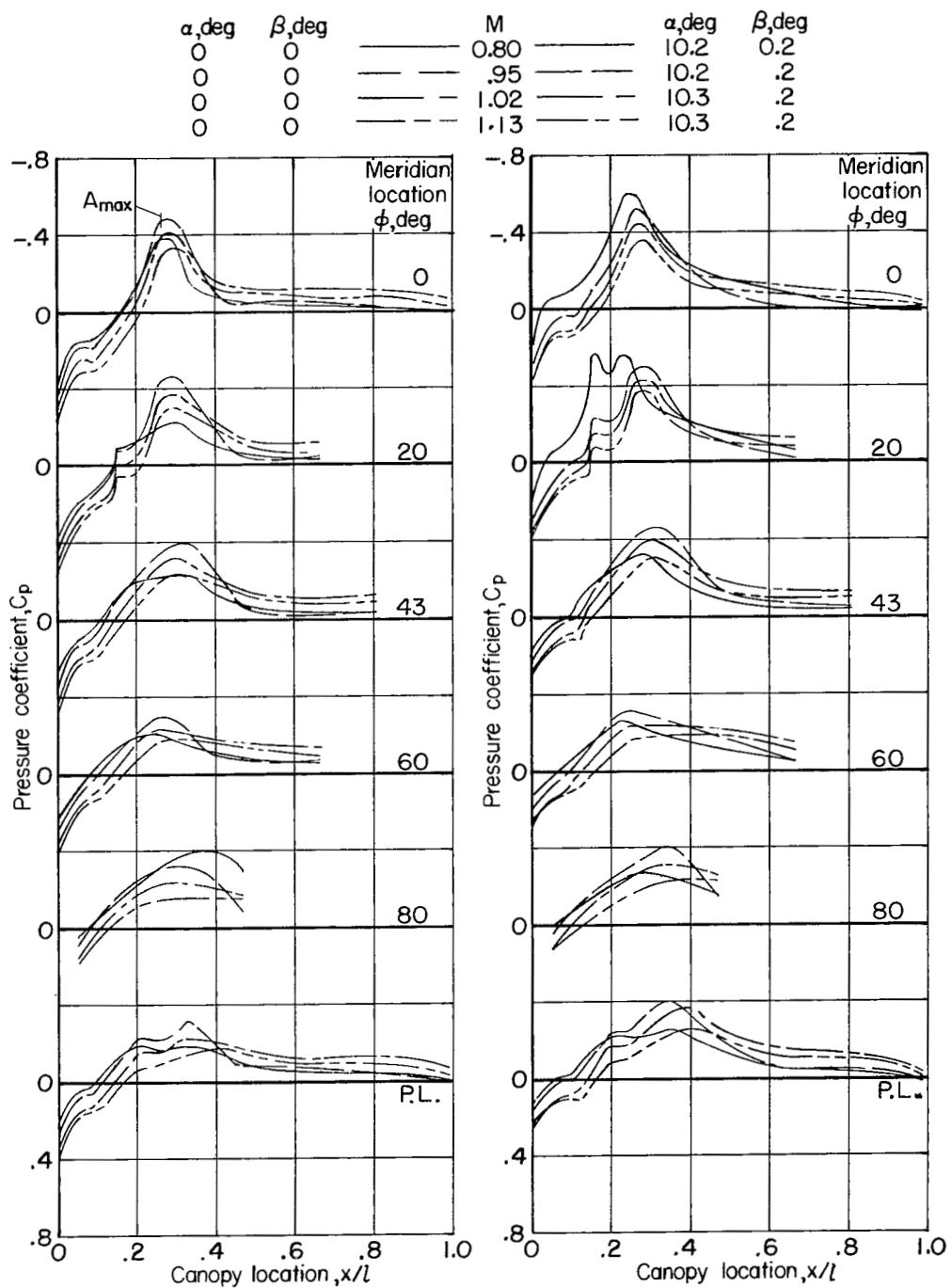
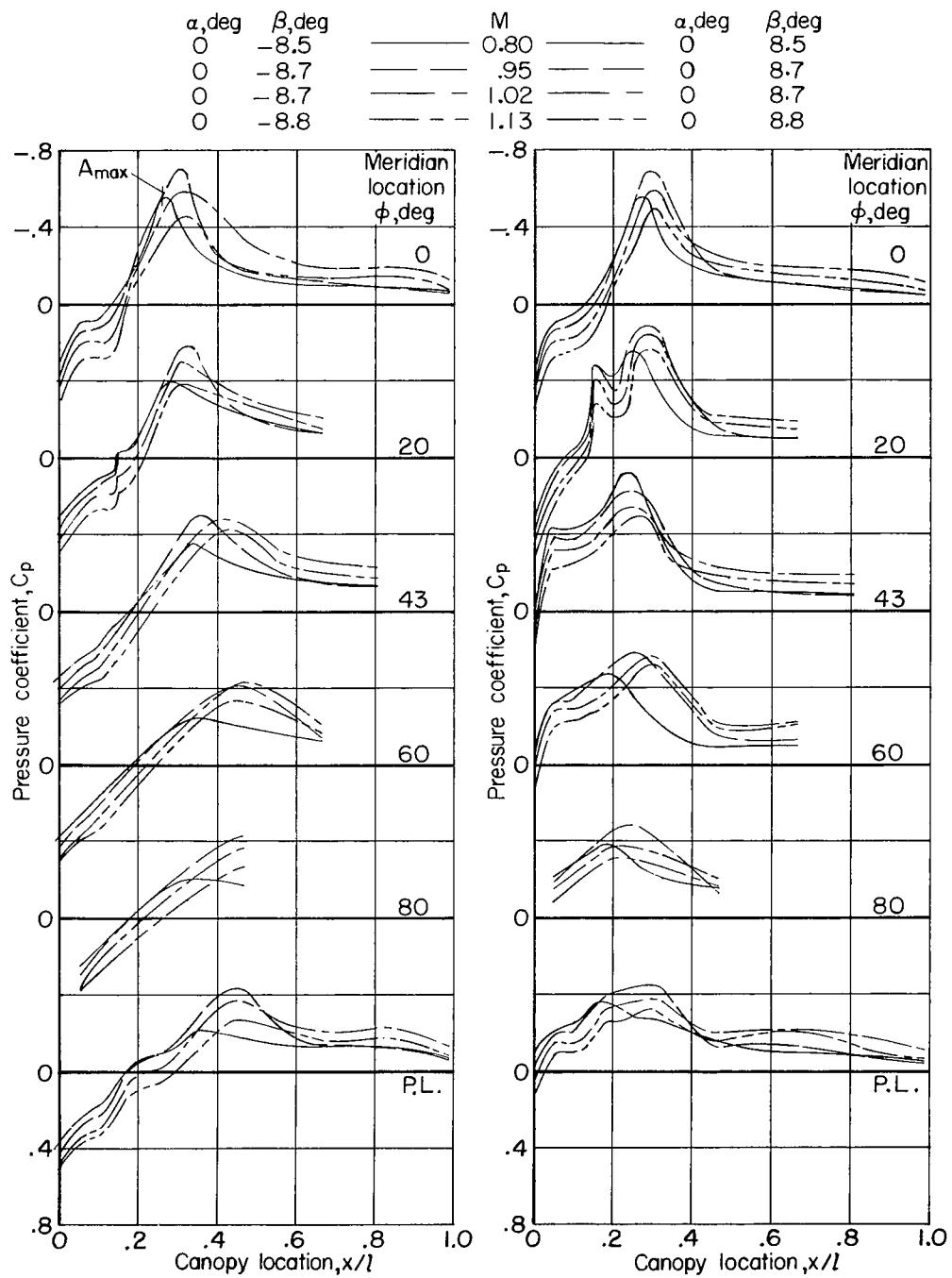


Figure 7.- Continued.



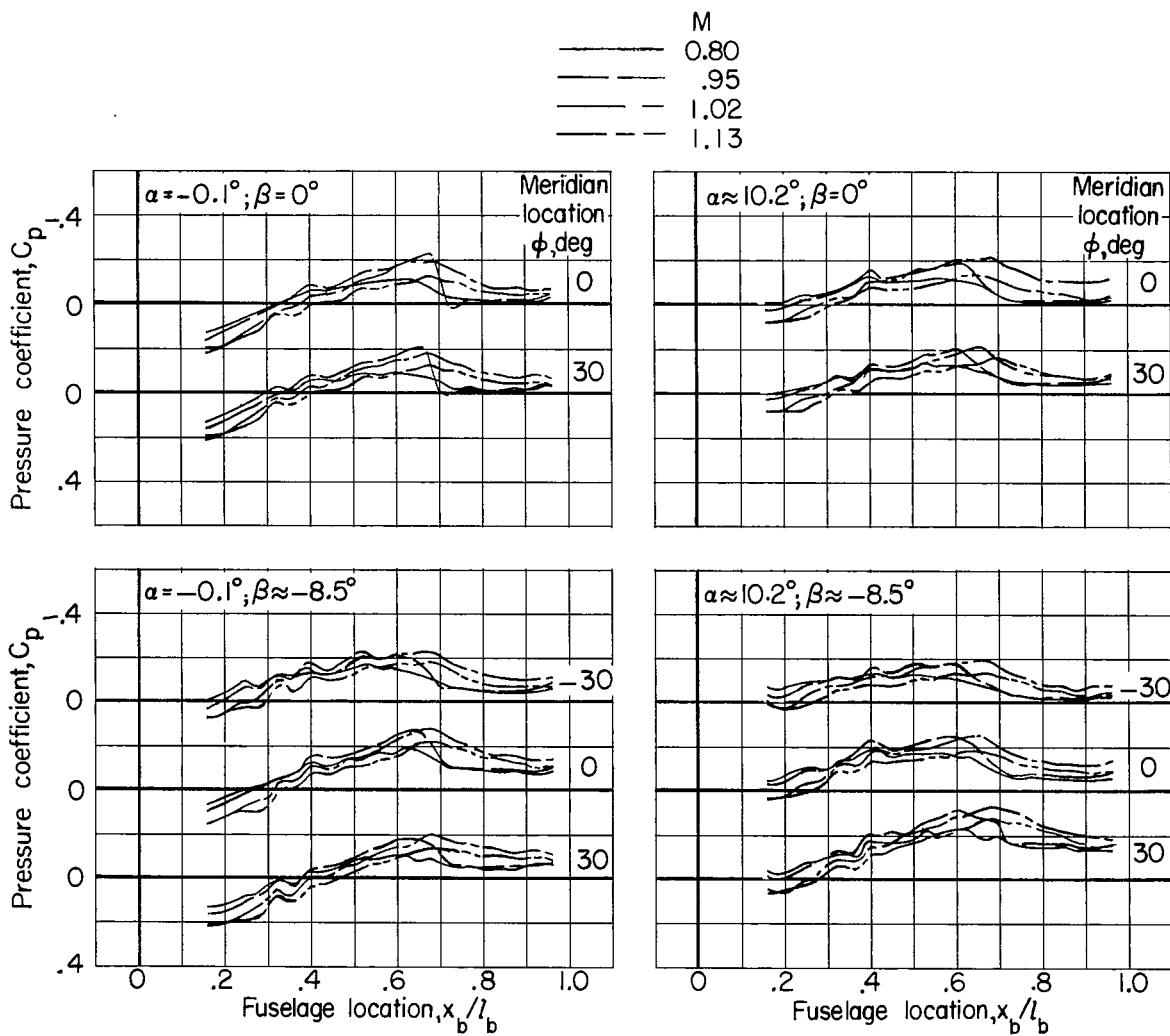
(d) Canopy 4.

Figure 7.- Continued.



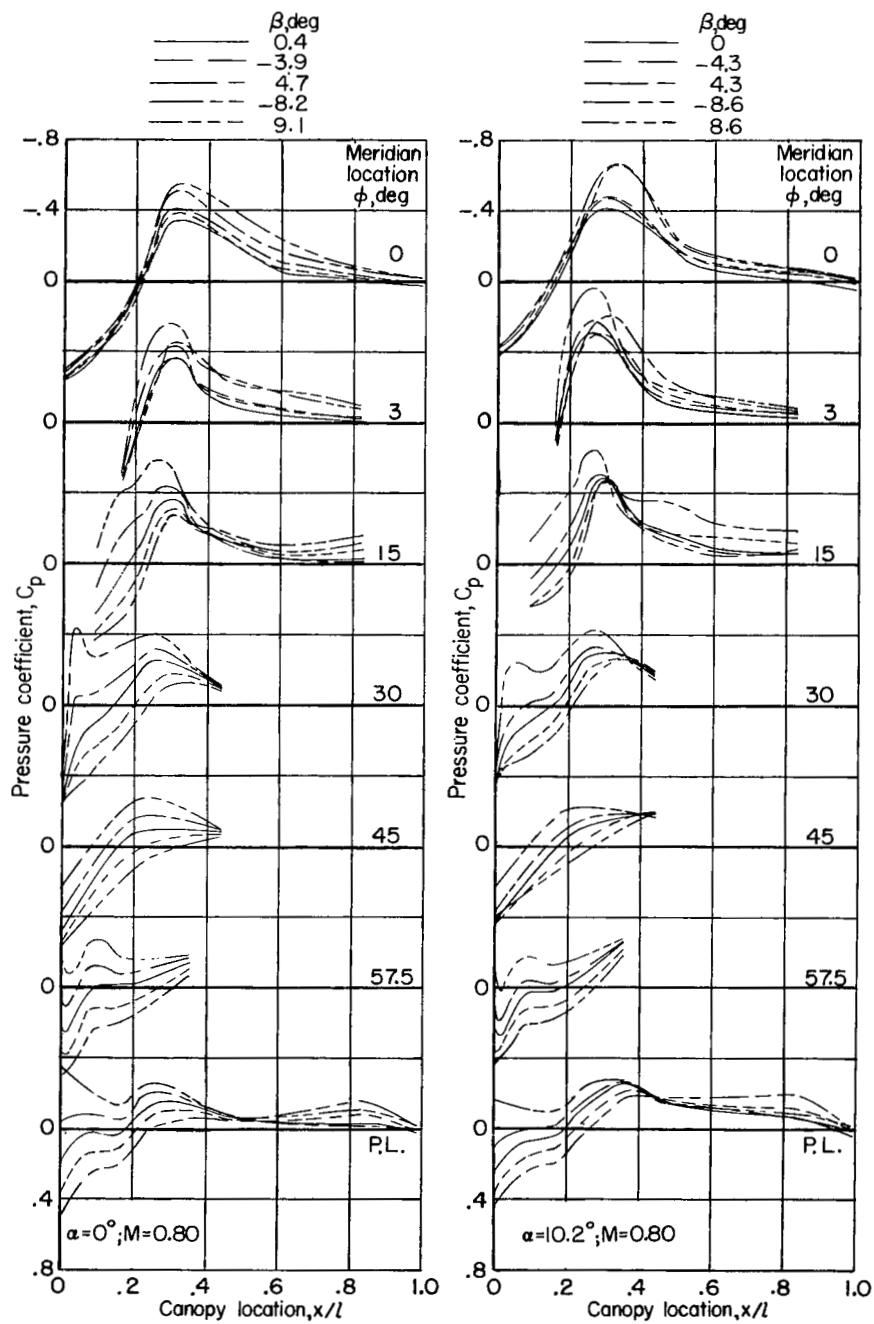
(d) Canopy 4. Concluded.

Figure 7.- Continued.



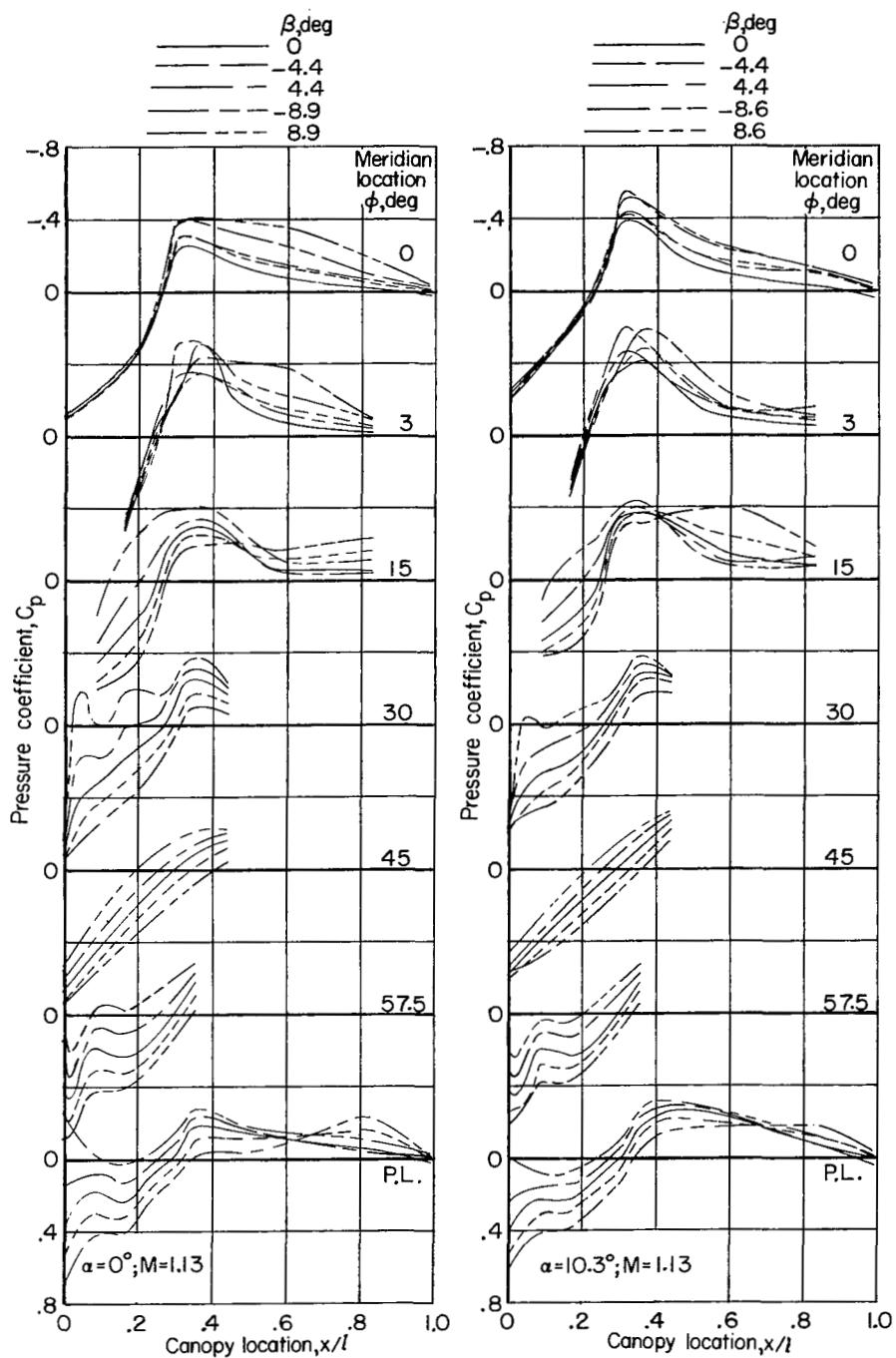
(e) Fuselage alone.

Figure 7.- Concluded.



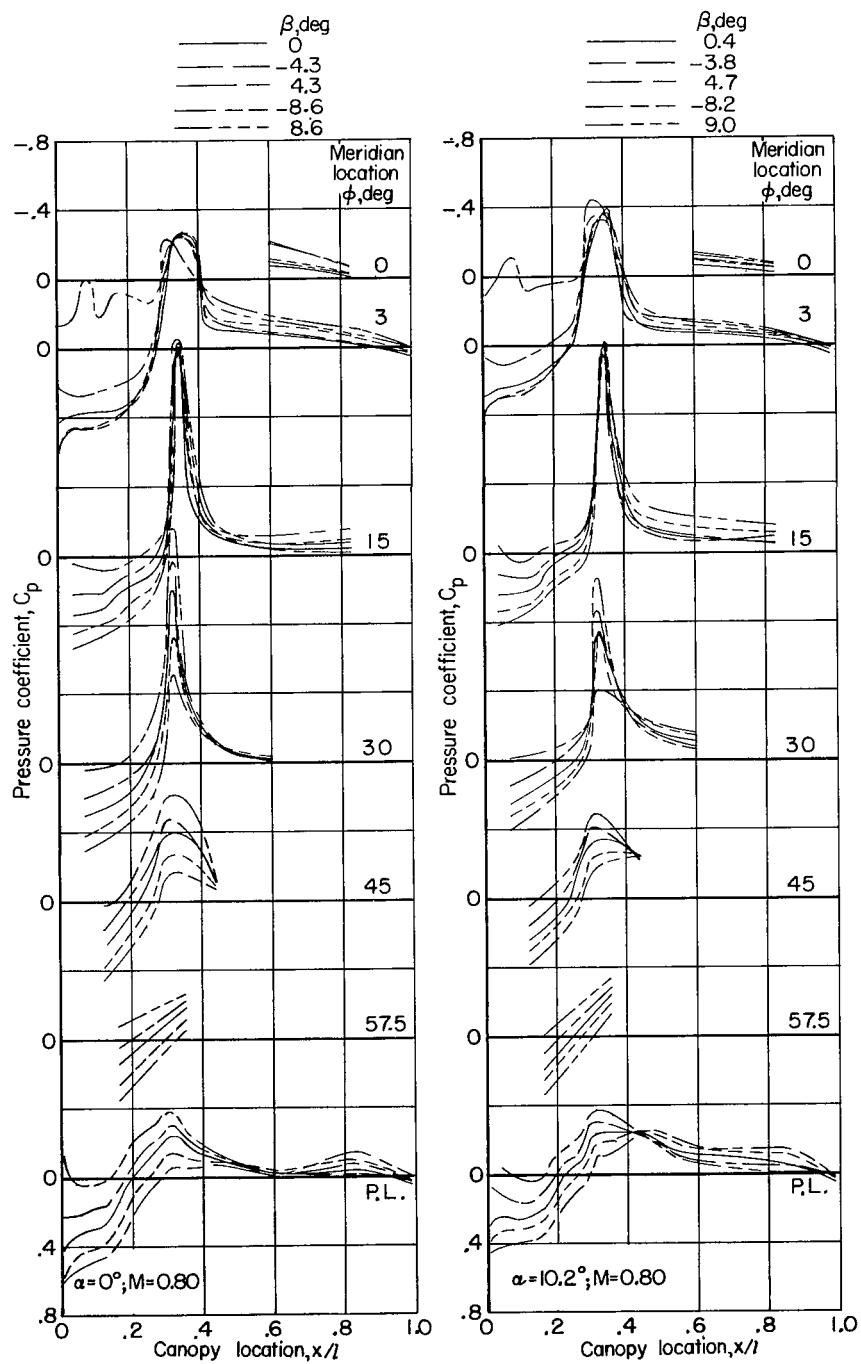
(a) Canopy 1.

Figure 8.- Effect of sideslip on pressure-coefficient distributions for all canopies and fuselage alone.



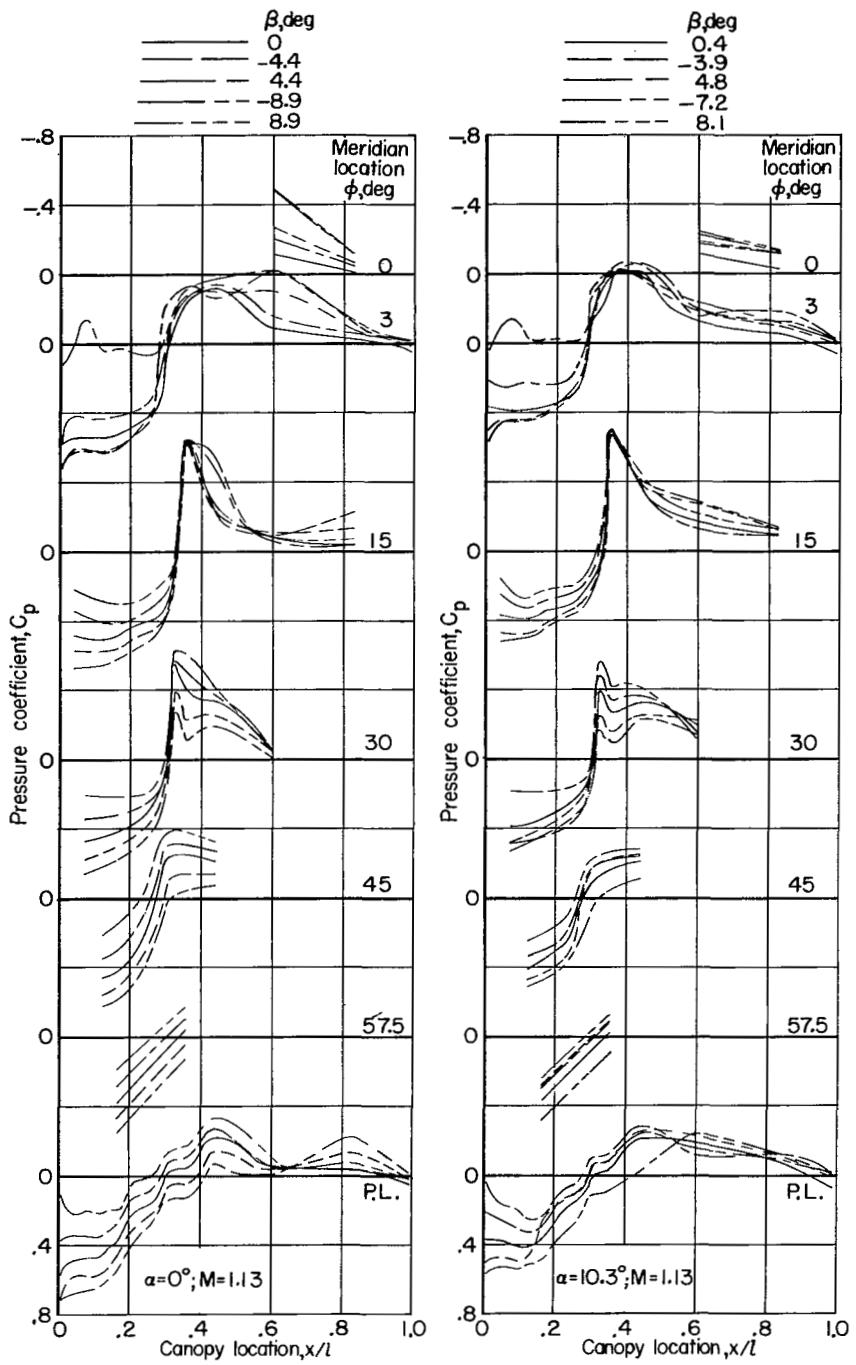
(a) Canopy 1. Concluded.

Figure 8.- Continued.



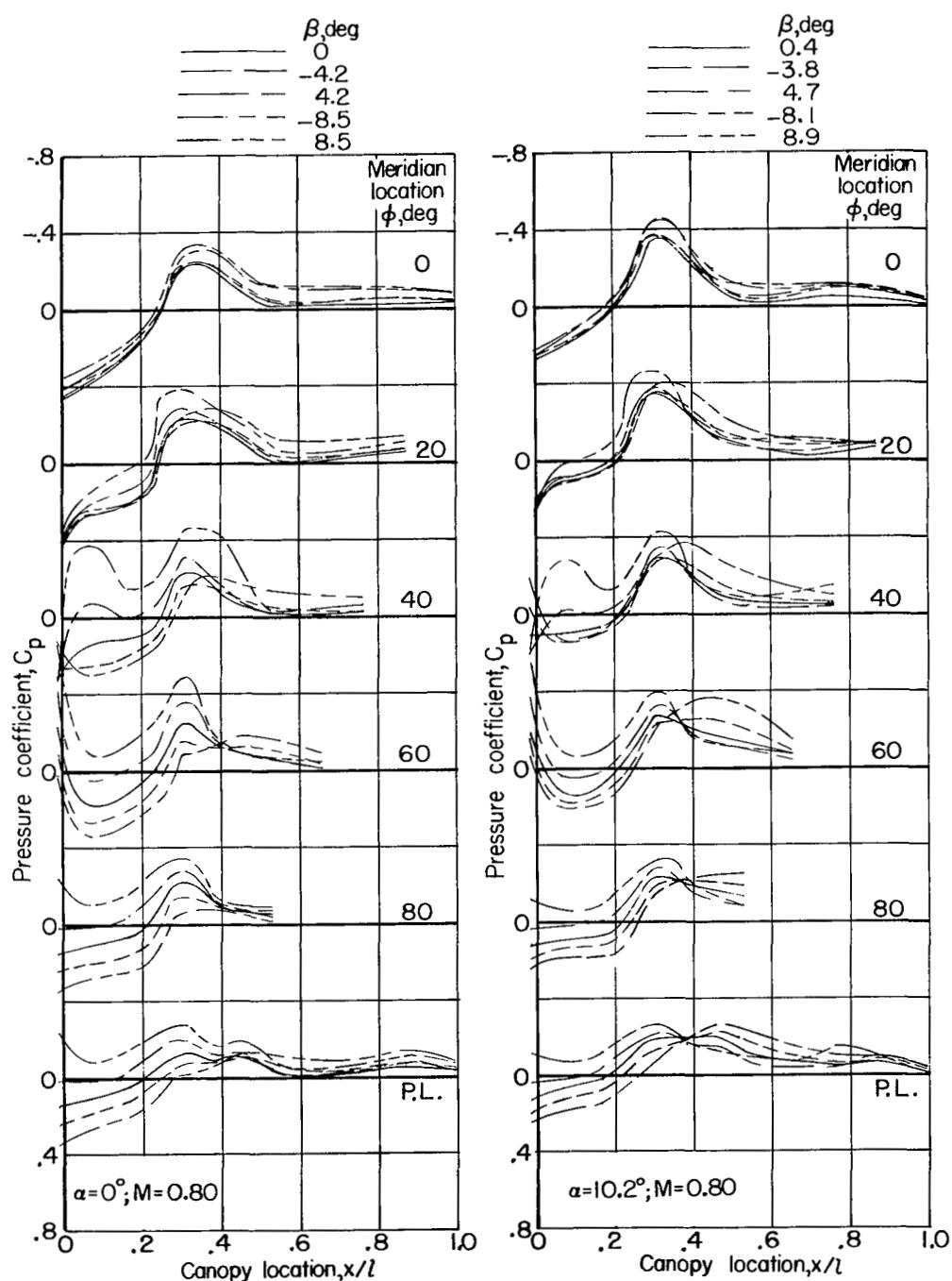
(b) Canopy 2.

Figure 8.- Continued.



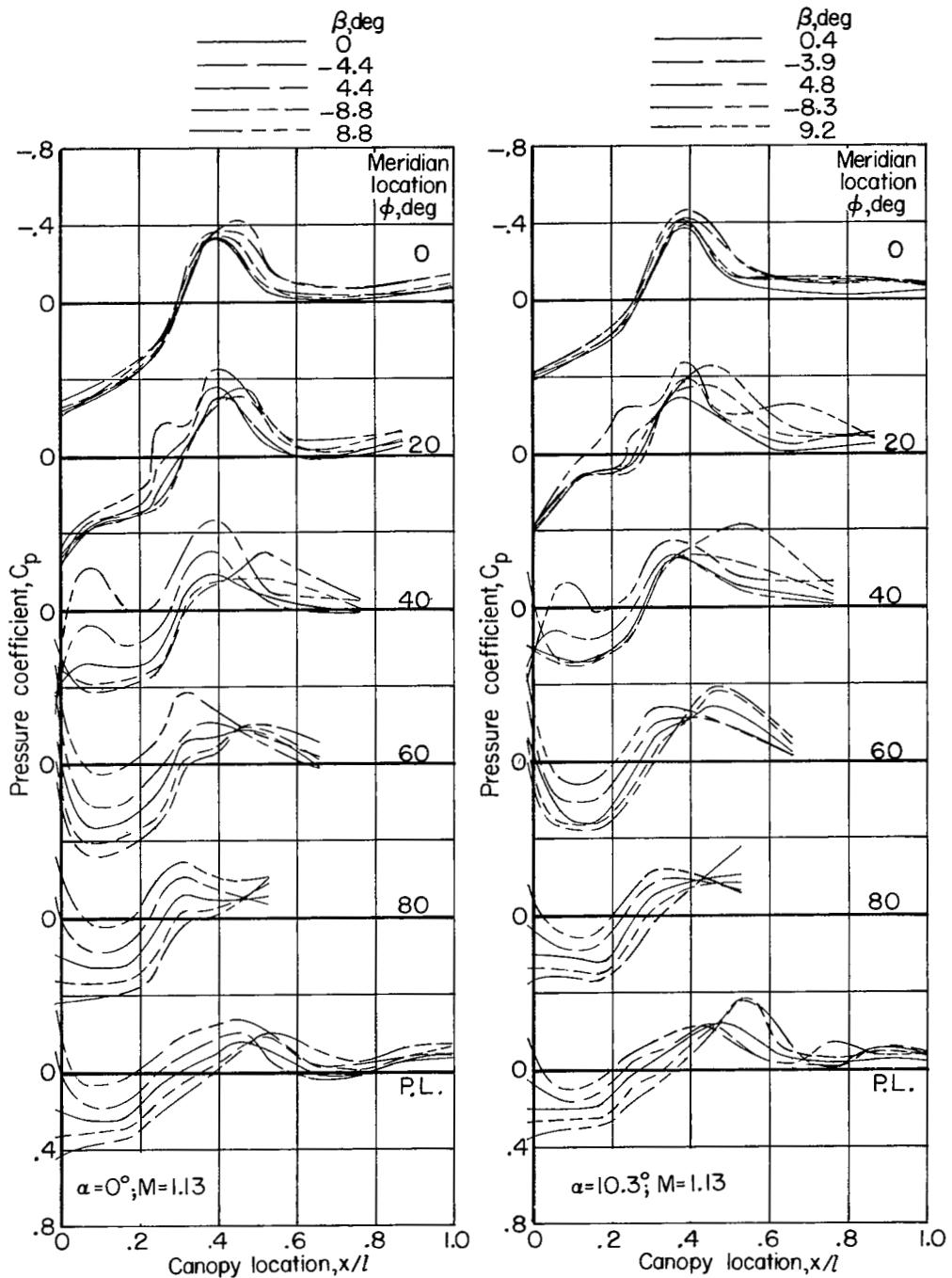
(b) Canopy 2. Concluded.

Figure 8.- Continued.



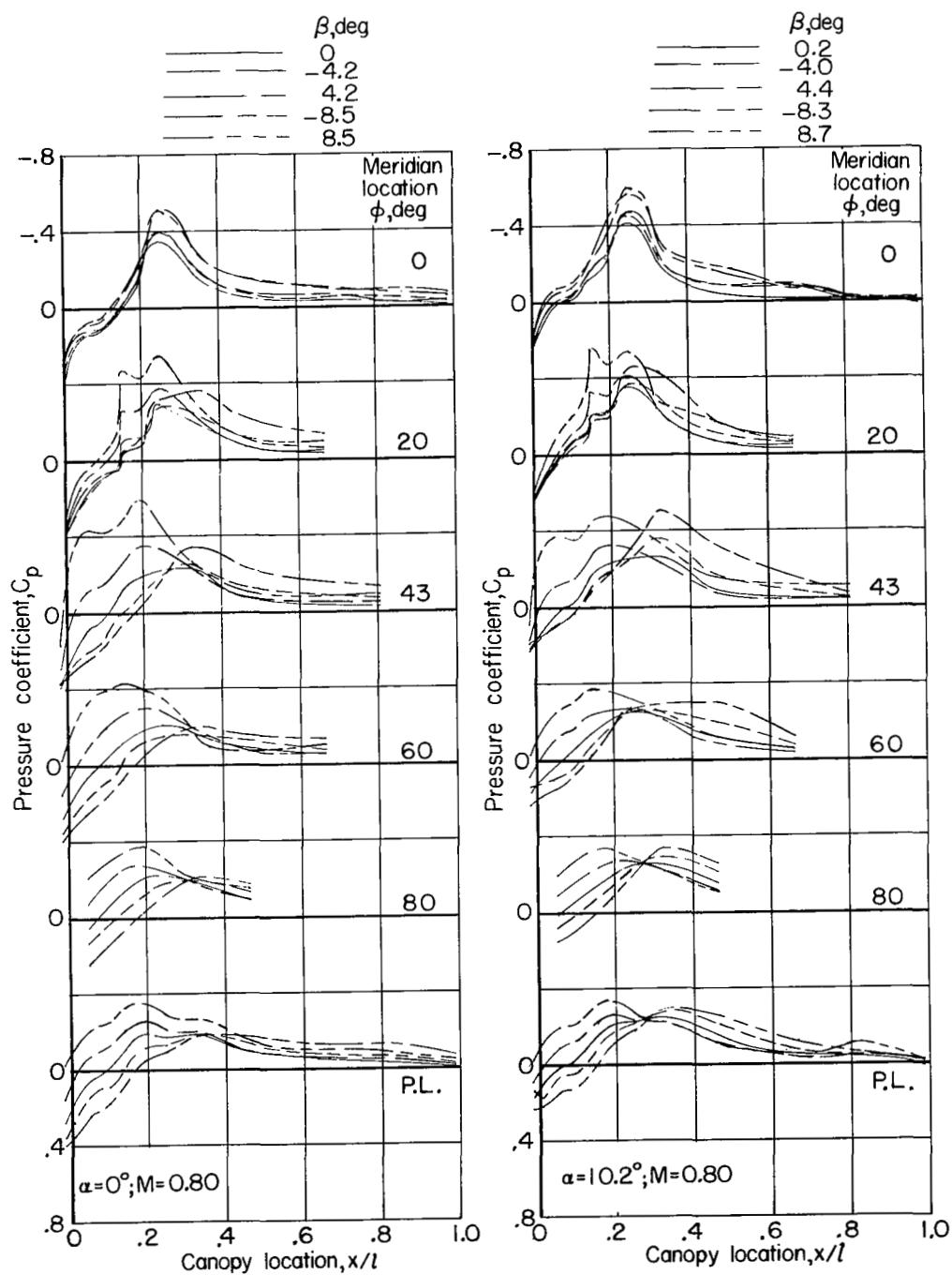
(c) Canopy 3.

Figure 8.- Continued.



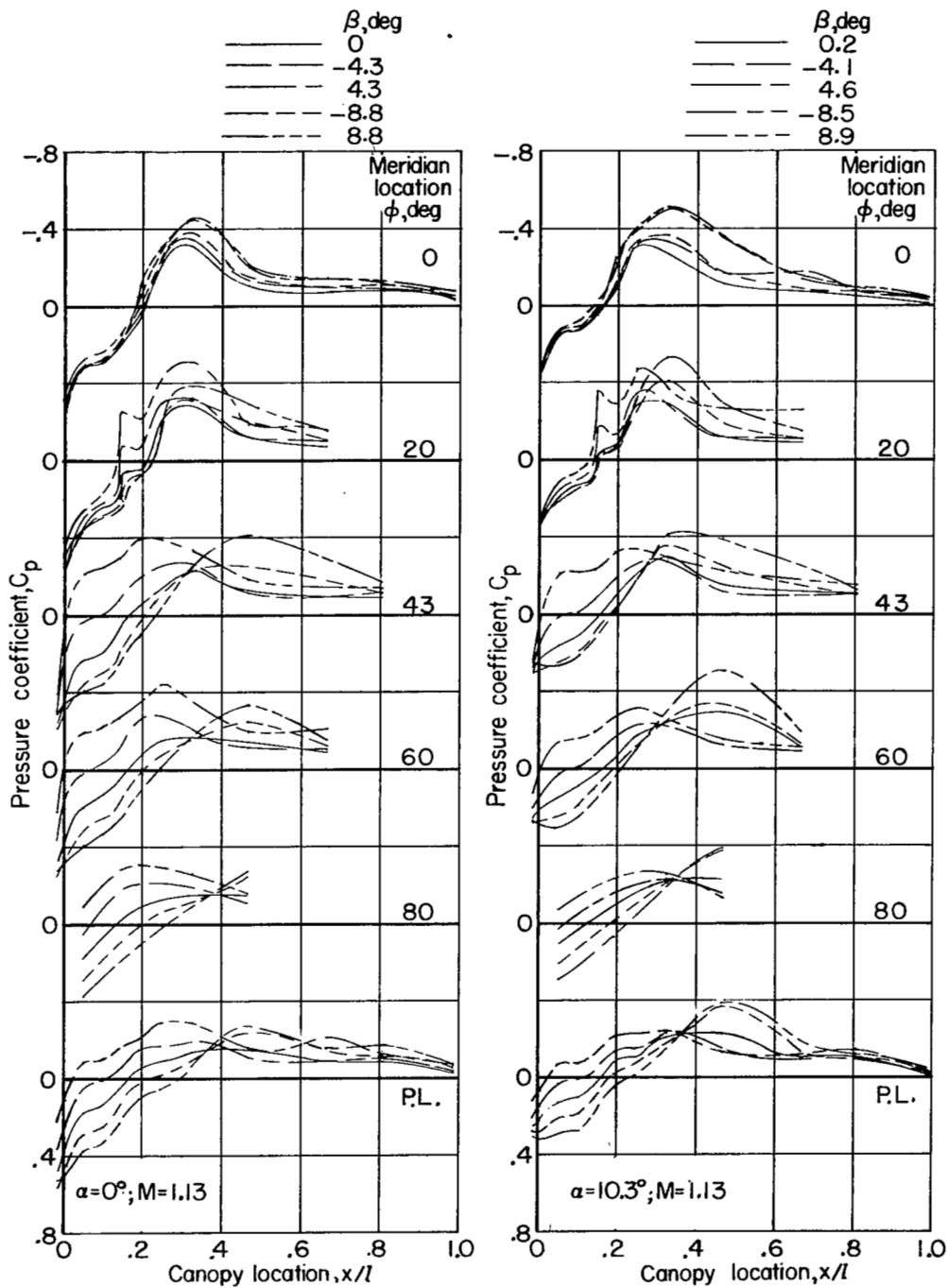
(c) Canopy 3. Concluded.

Figure 8.- Continued.



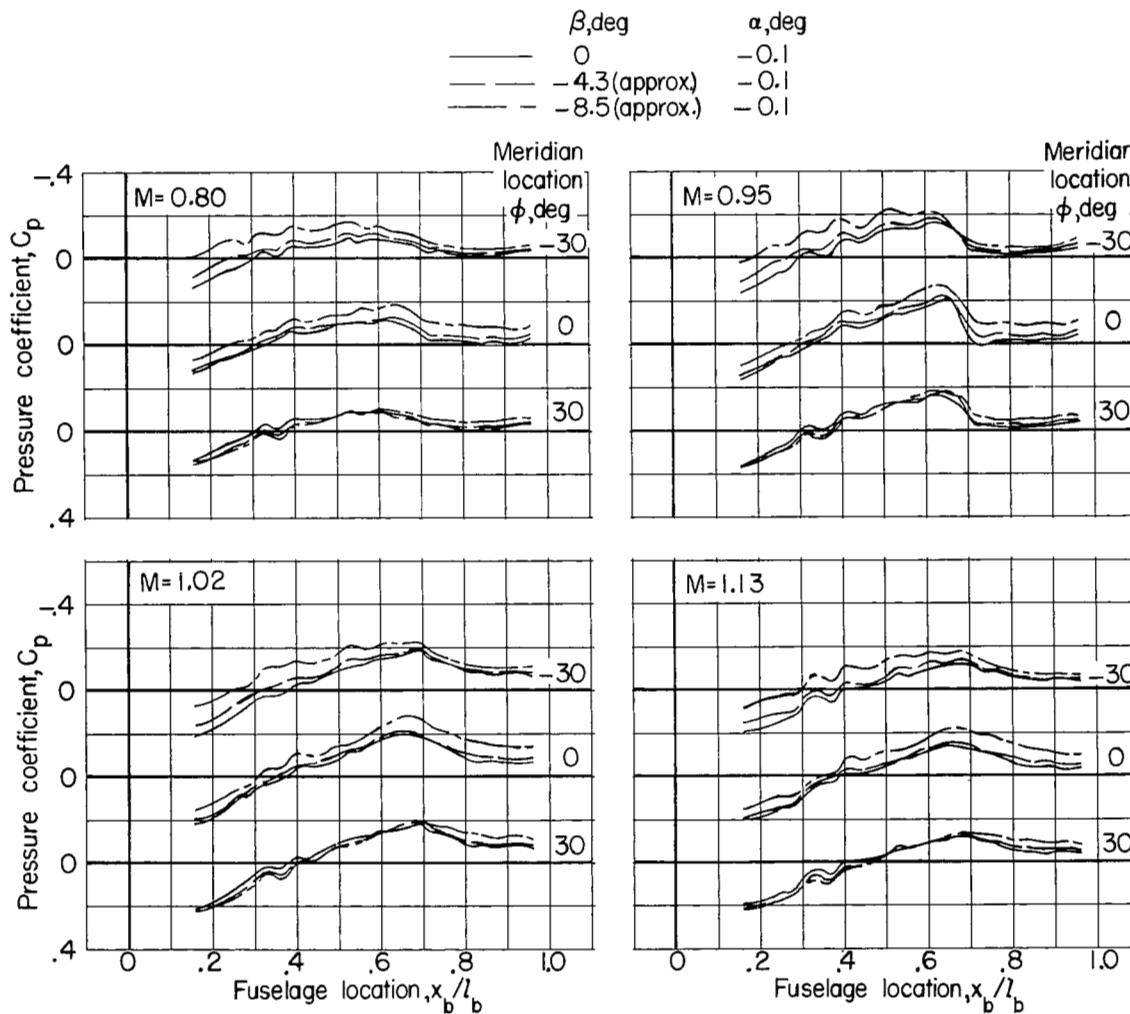
(d) Canopy 4.

Figure 8.- Continued.



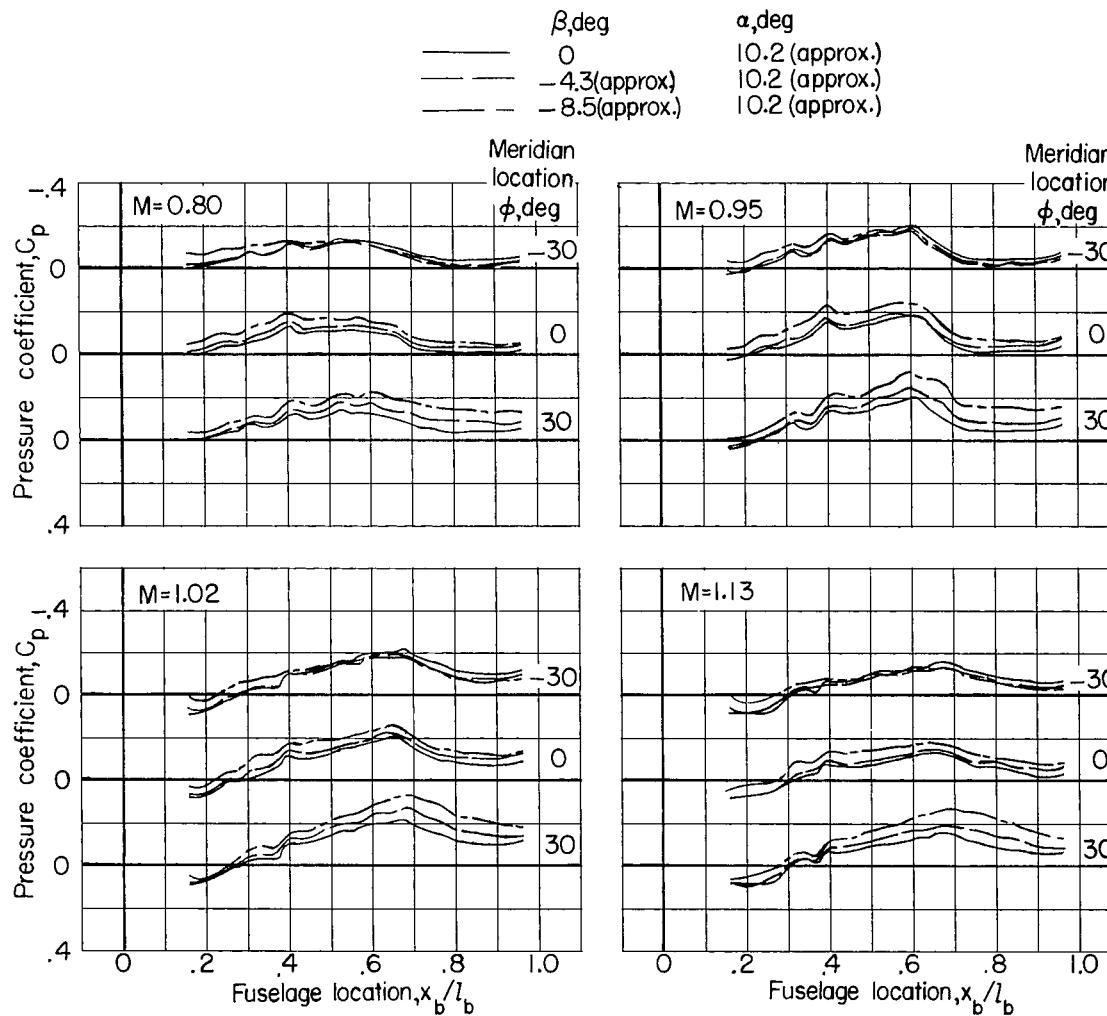
(d) Canopy 4. Concluded.

Figure 8.- Continued.



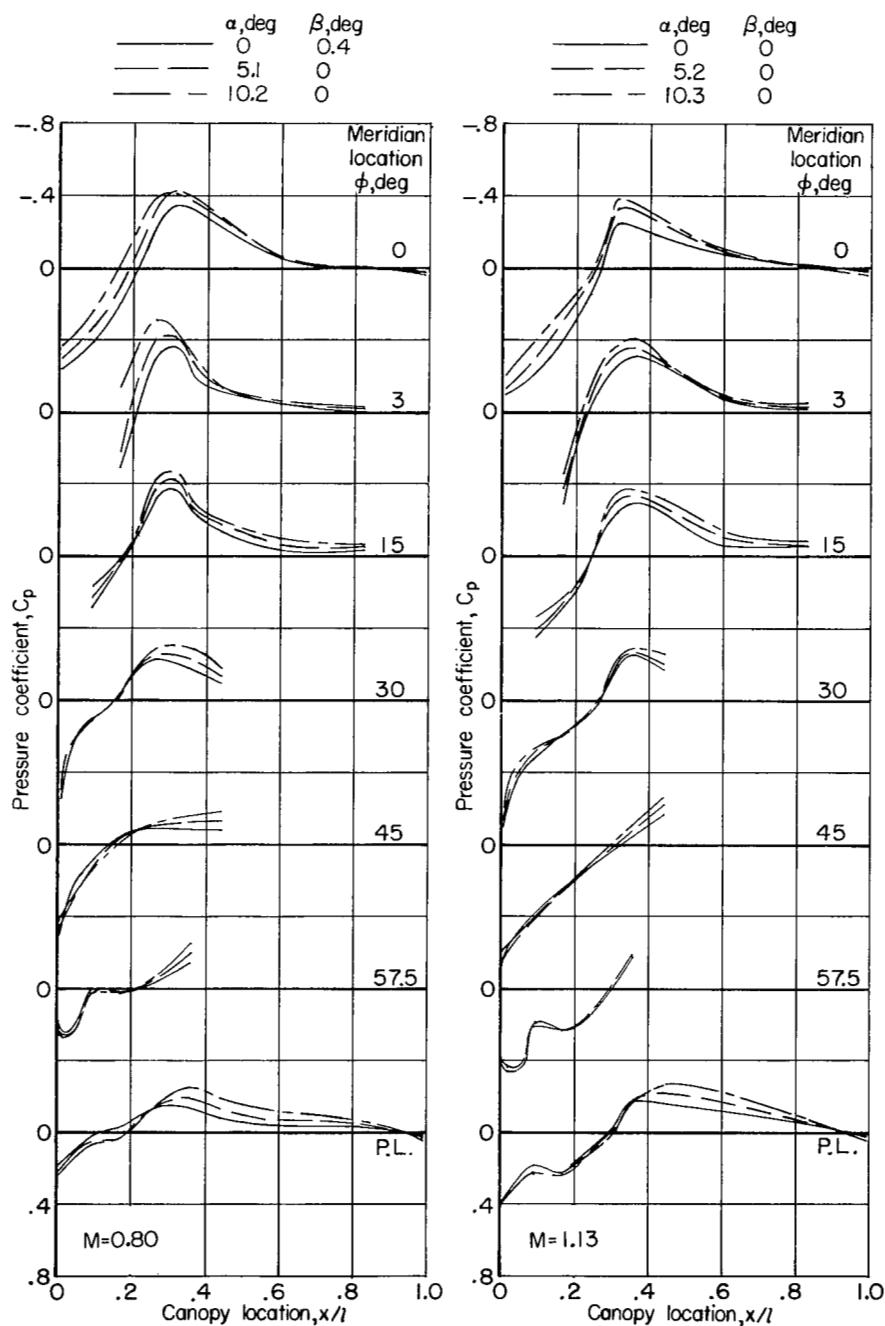
(e) Fuselage alone.

Figure 8.-- Continued.



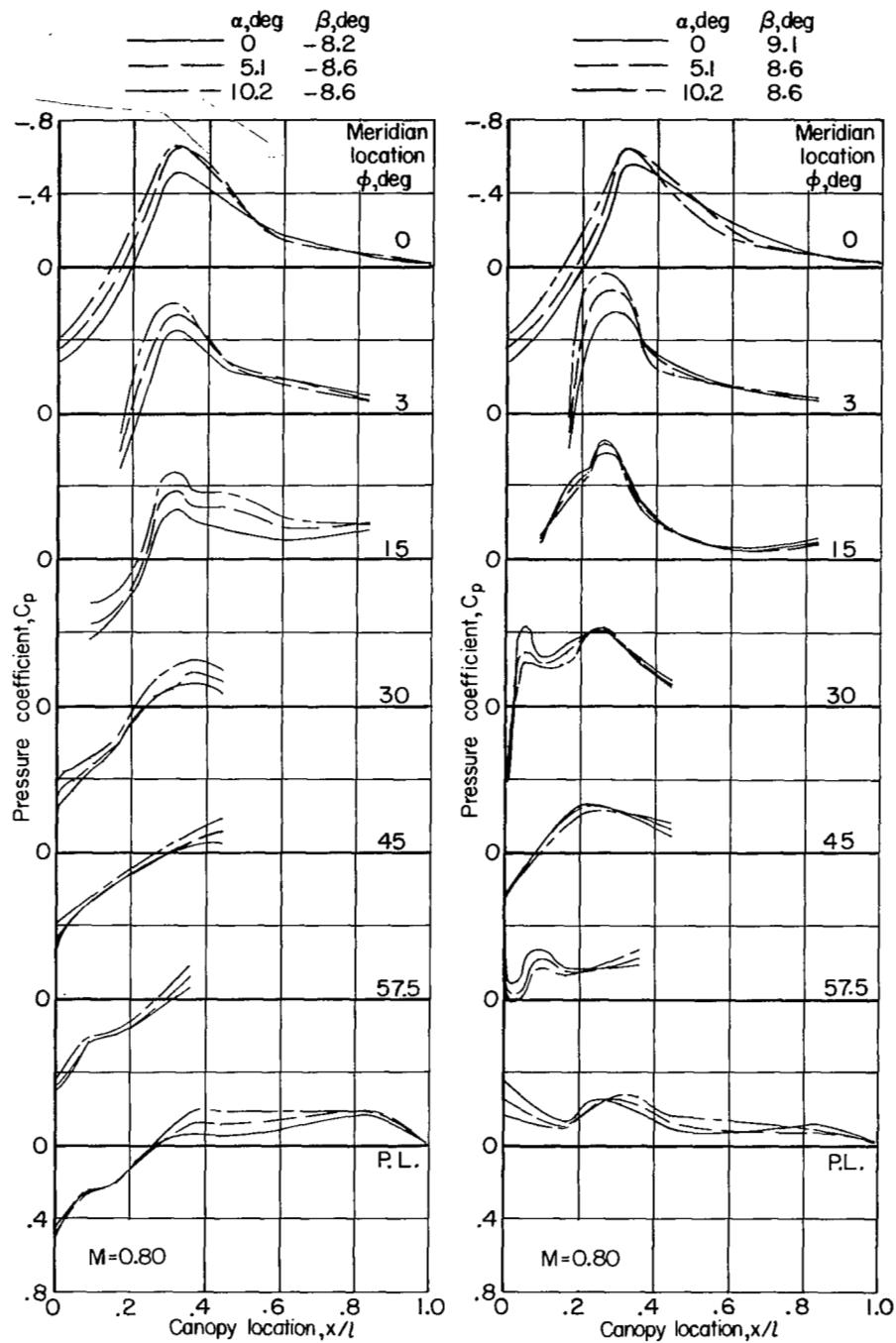
(e) Fuselage alone. Concluded.

Figure 8.- Concluded.



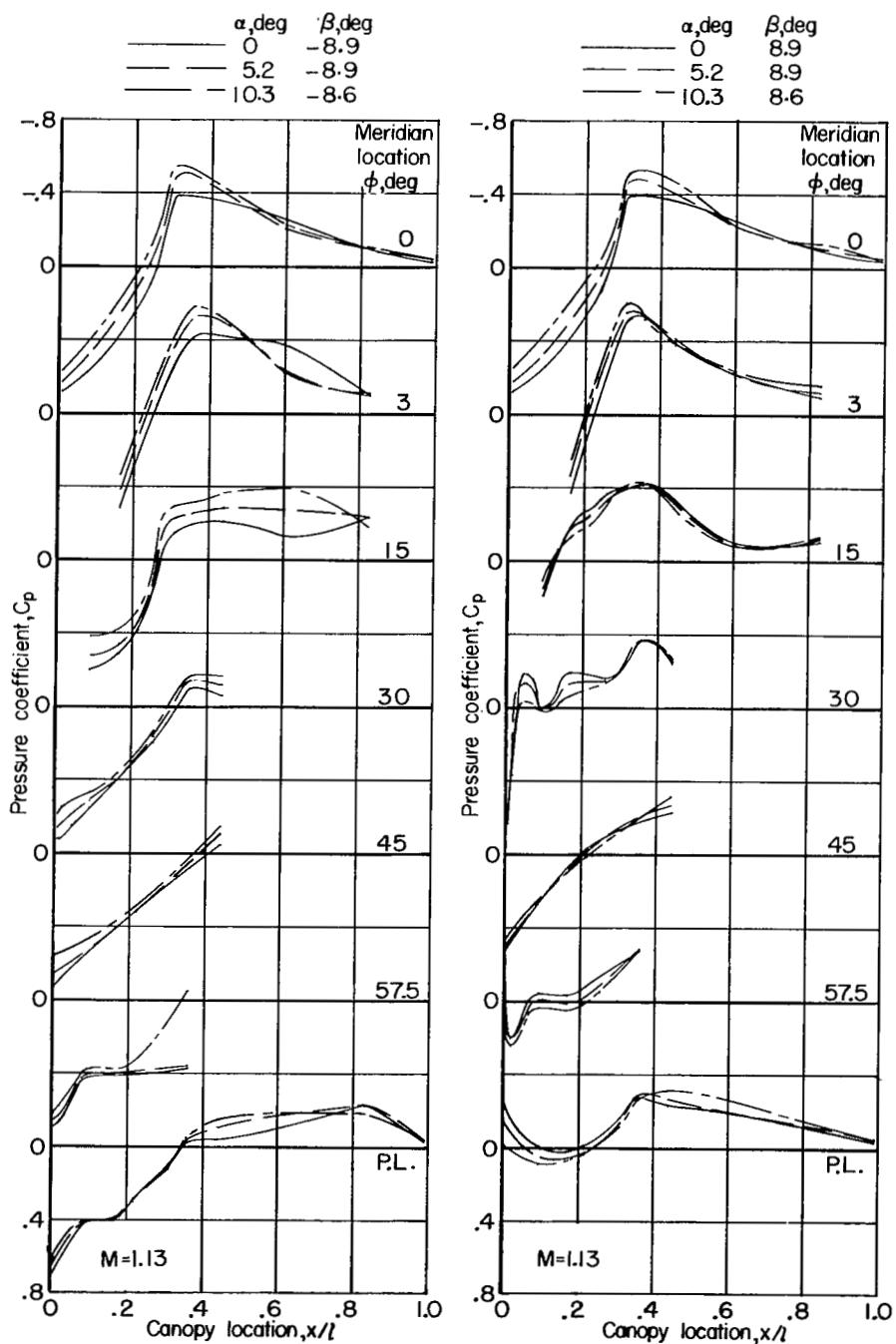
(a) Canopy 1.

Figure 9.- Effect of angle of attack on pressure-coefficient distributions for all canopies and fuselage alone.



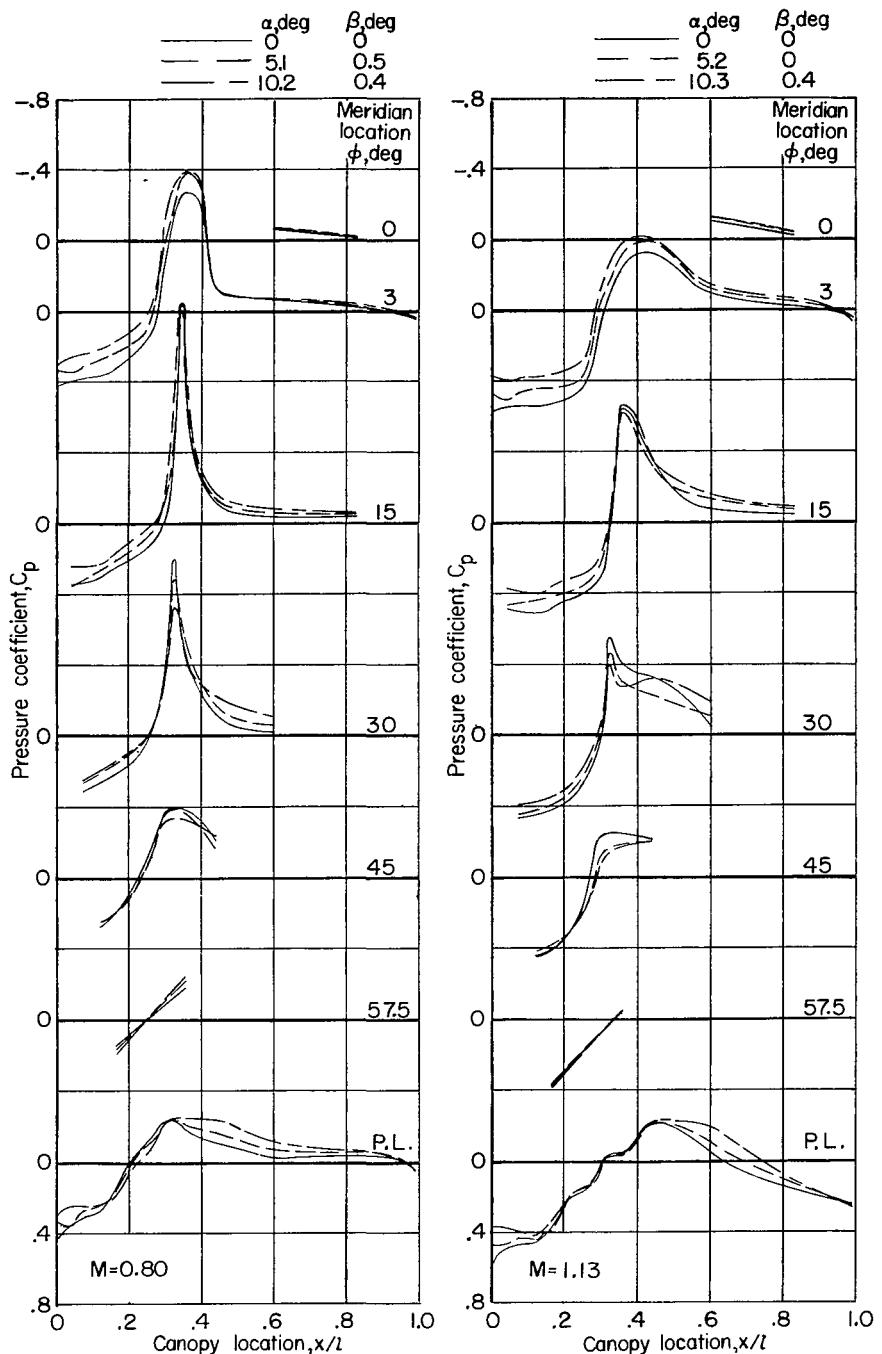
(a) Canopy 1. Continued.

Figure 9.- Continued.



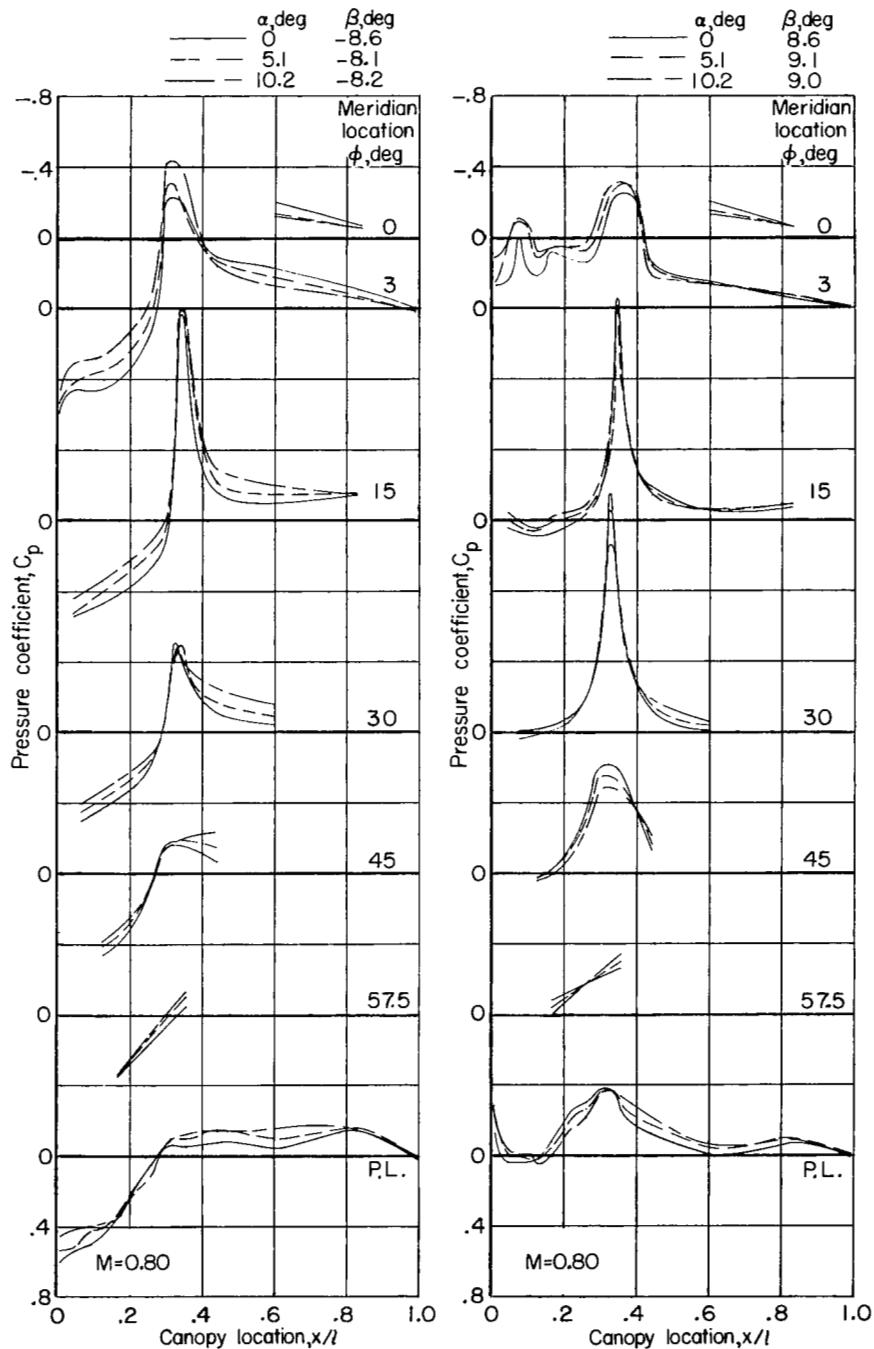
(a) Canopy 1. Concluded.

Figure 9.- Continued.



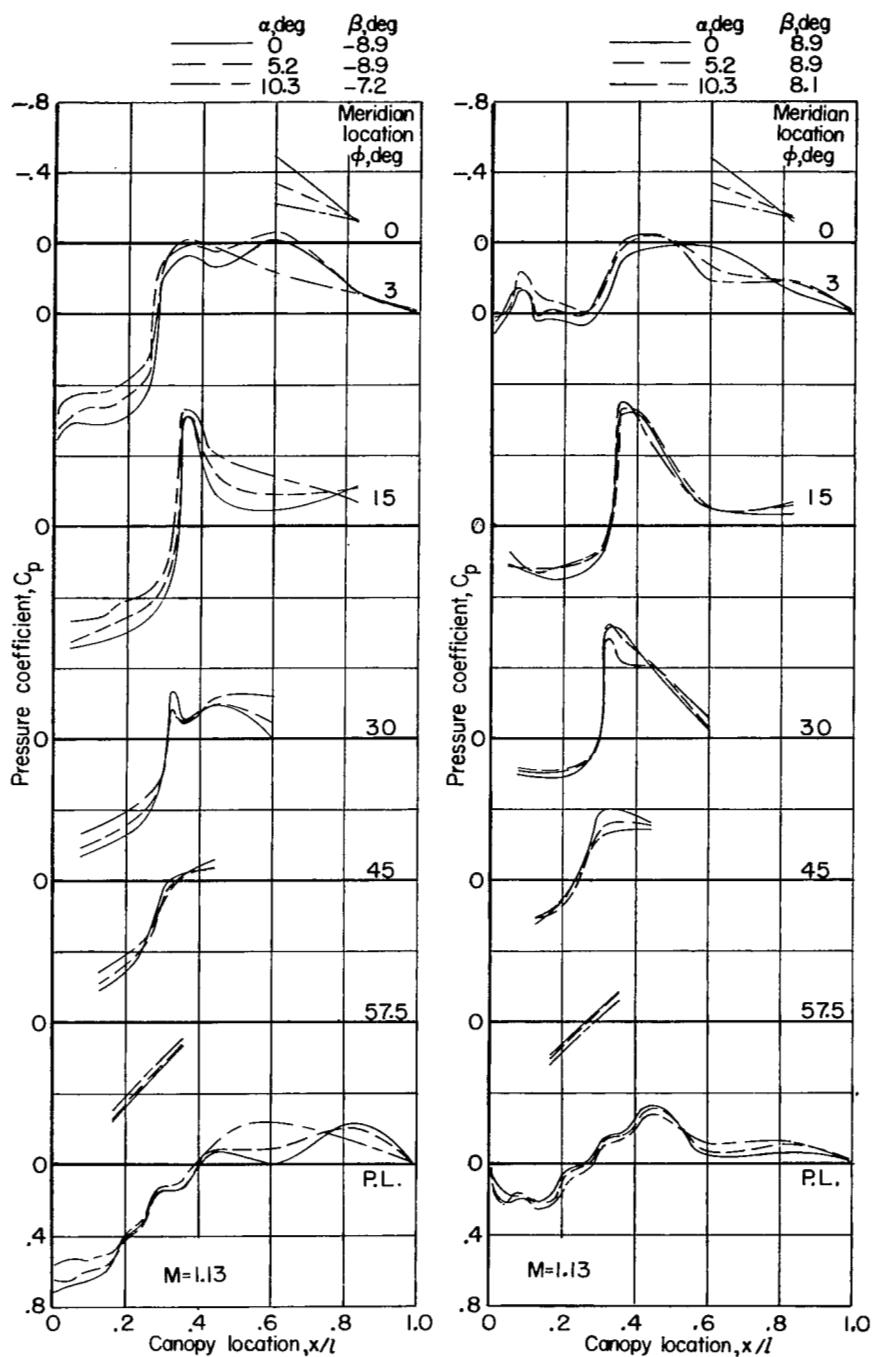
(b) Canopy 2.

Figure 9.- Continued.



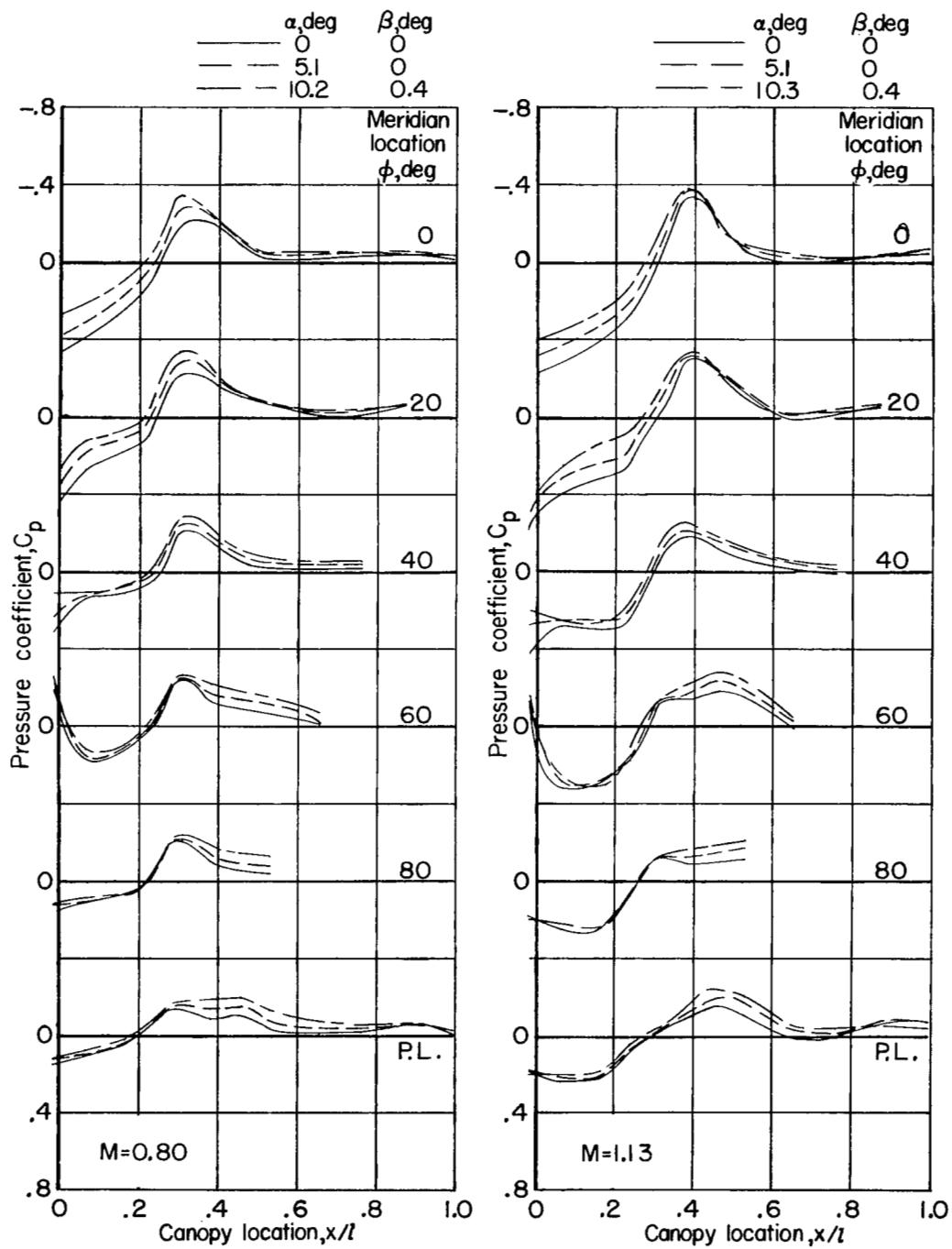
(b) Canopy 2. Continued.

Figure 9.- Continued.



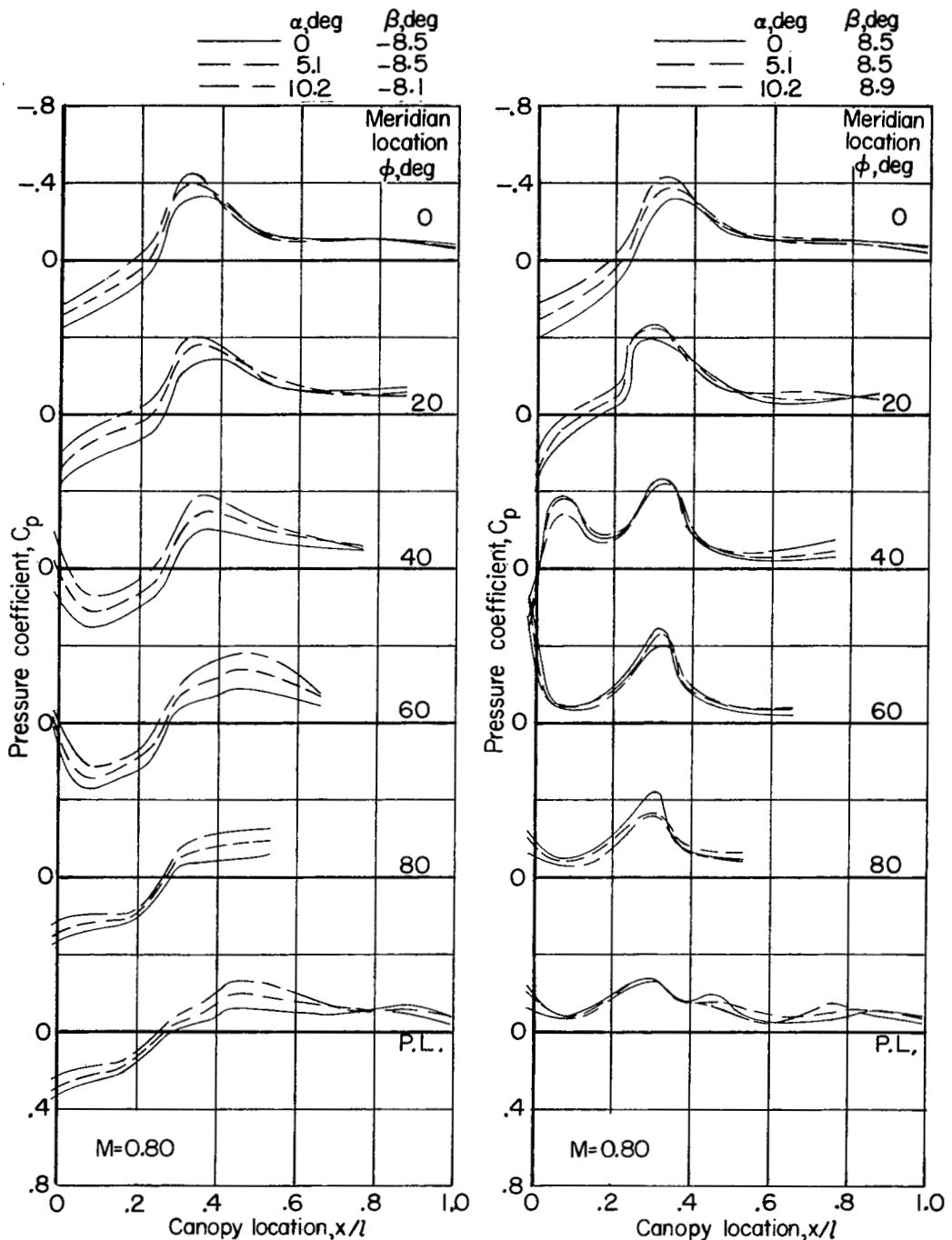
(b) Canopy 2. Concluded.

Figure 9.- Continued.



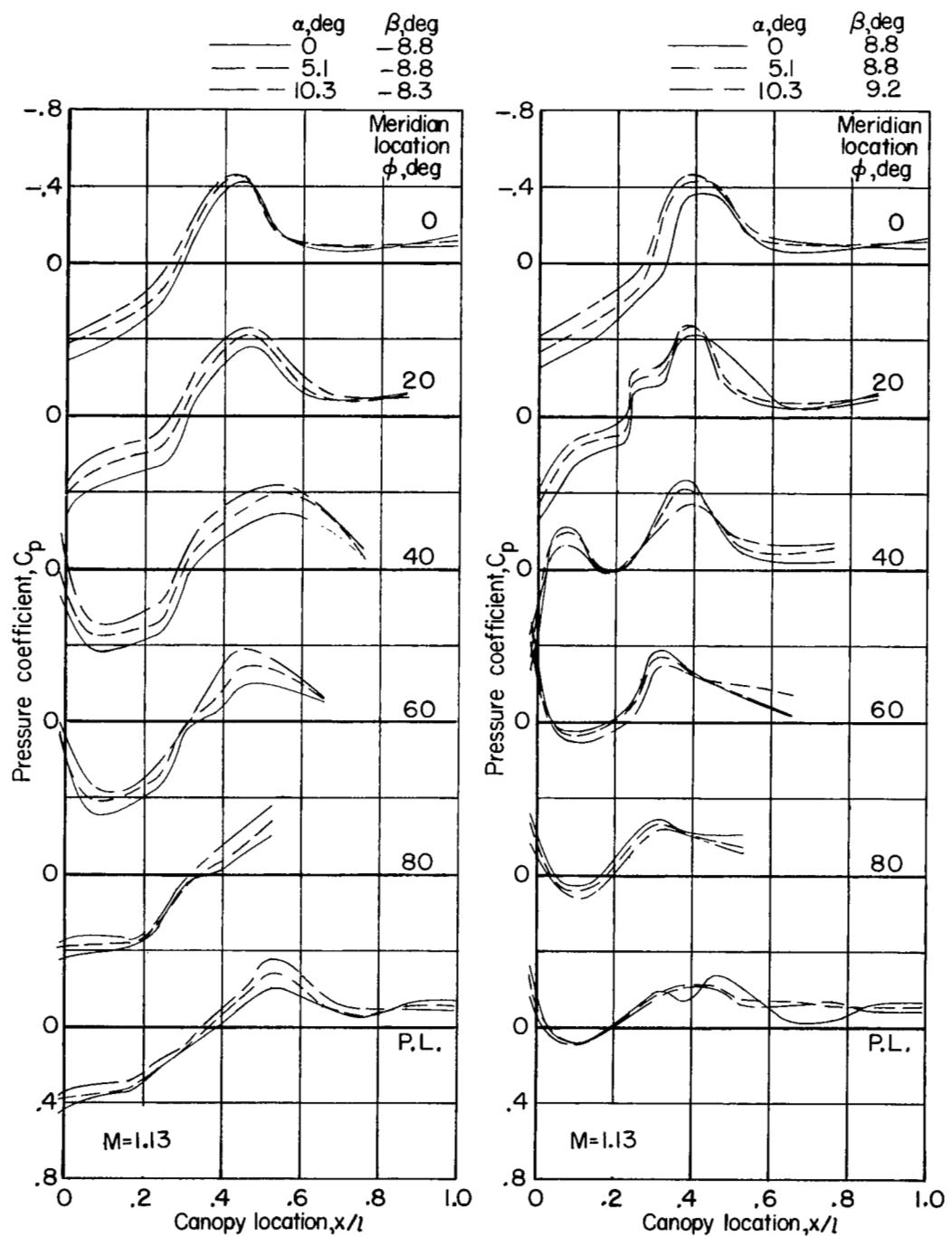
(c) Canopy 3.

Figure 9.- Continued.



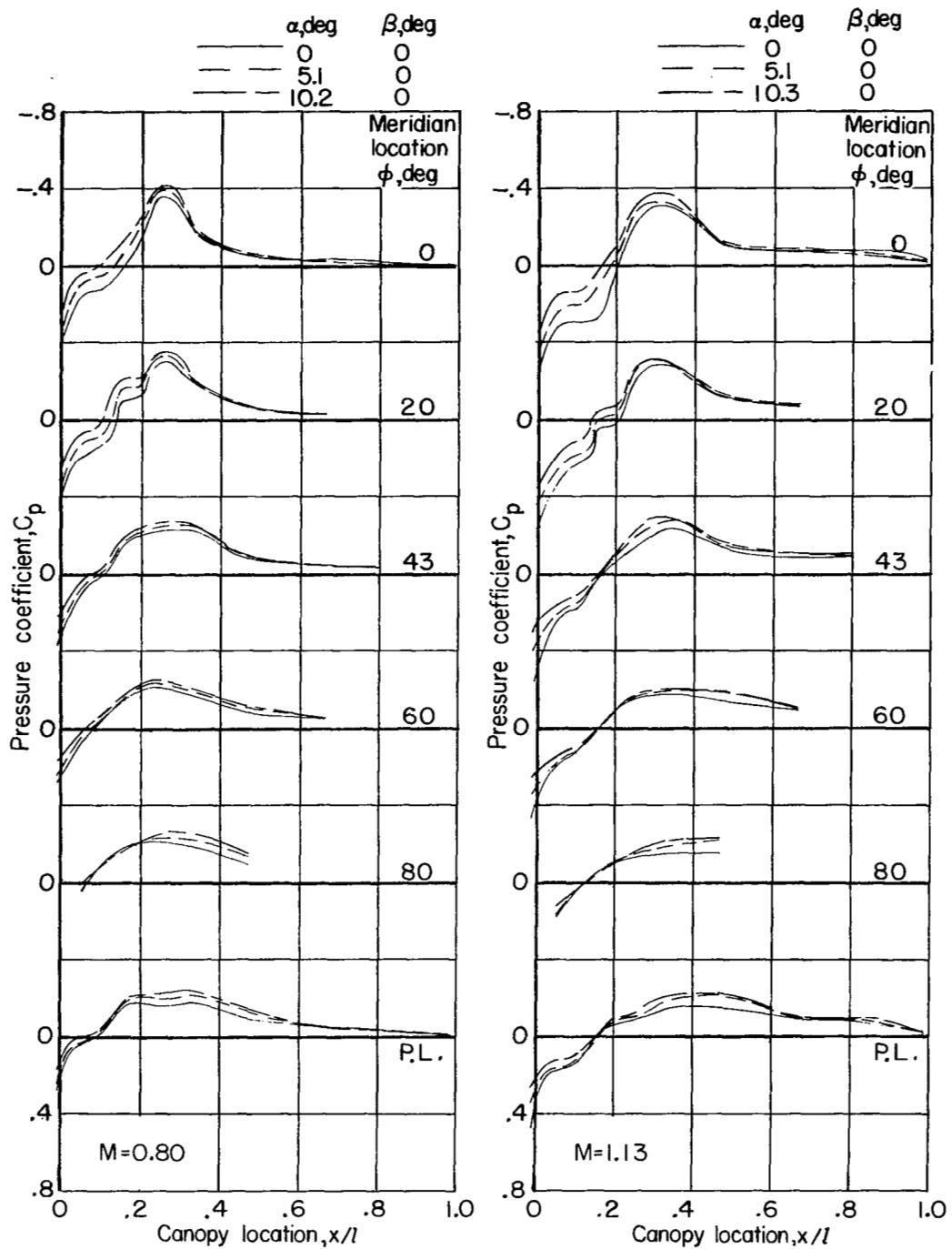
(c) Canopy 3. Continued.

Figure 9.-- Continued.



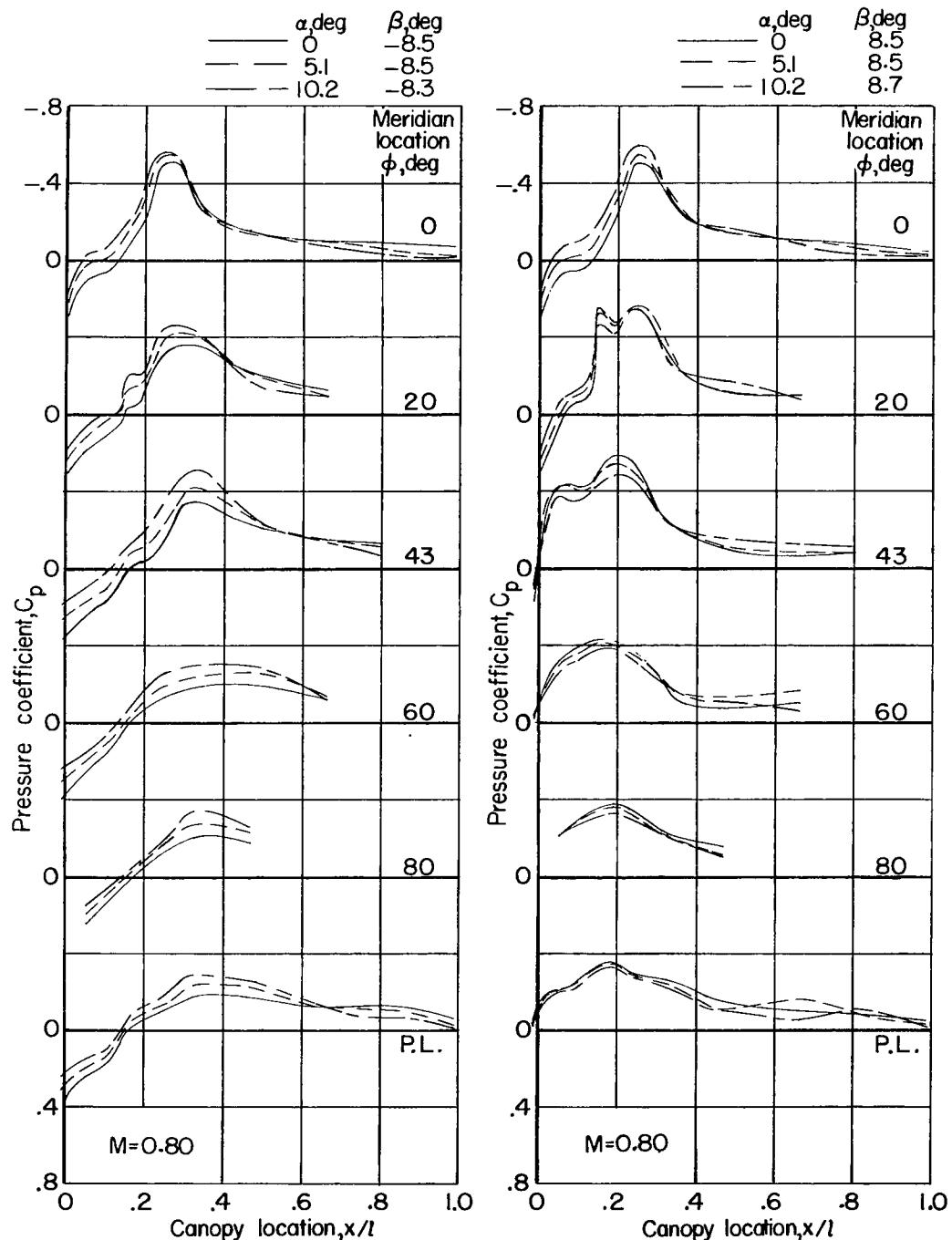
(c) Canopy 3. Concluded.

Figure 9.- Continued.



(d) Canopy 4.

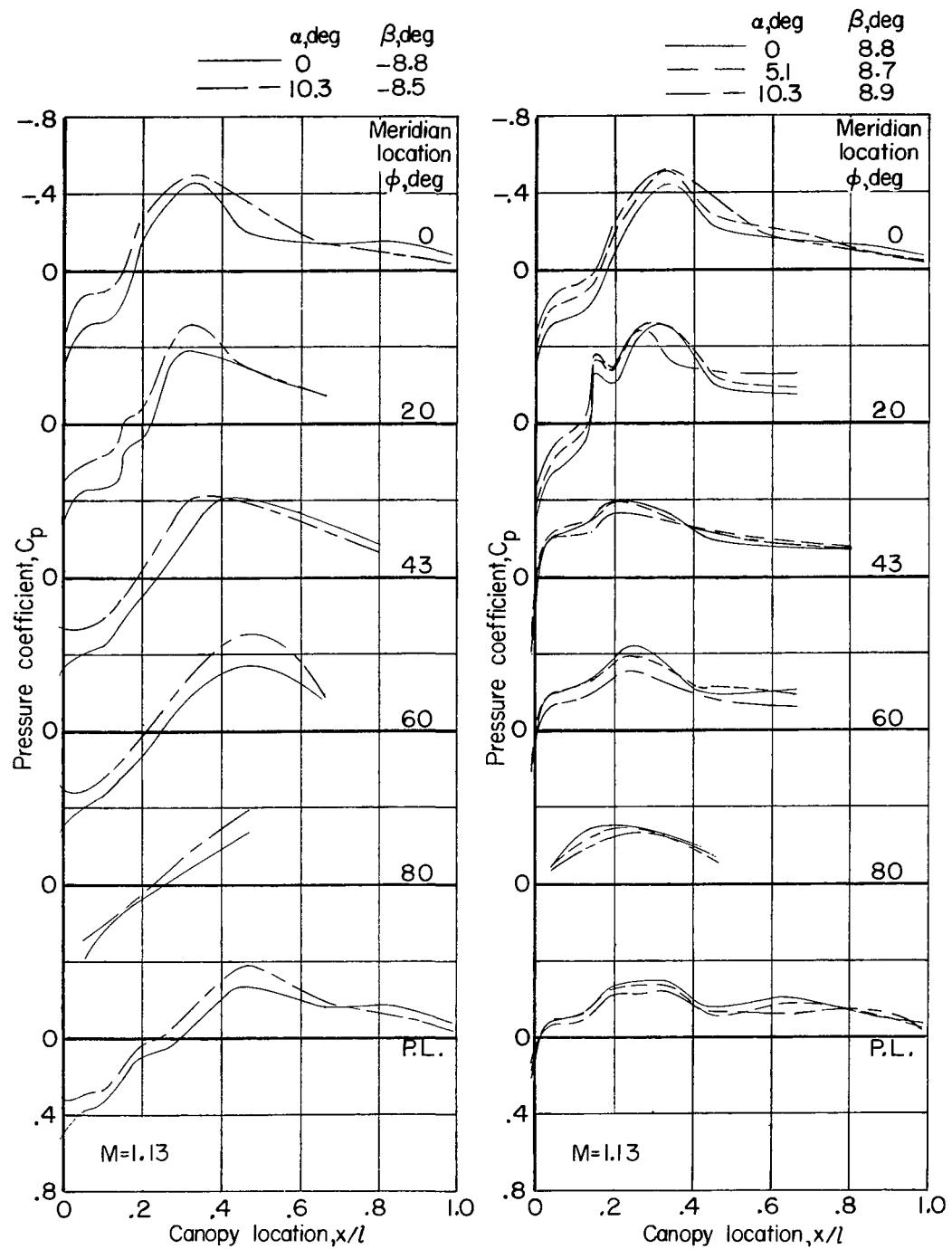
Figure 9.- Continued.



(d) Canopy 4. Continued.

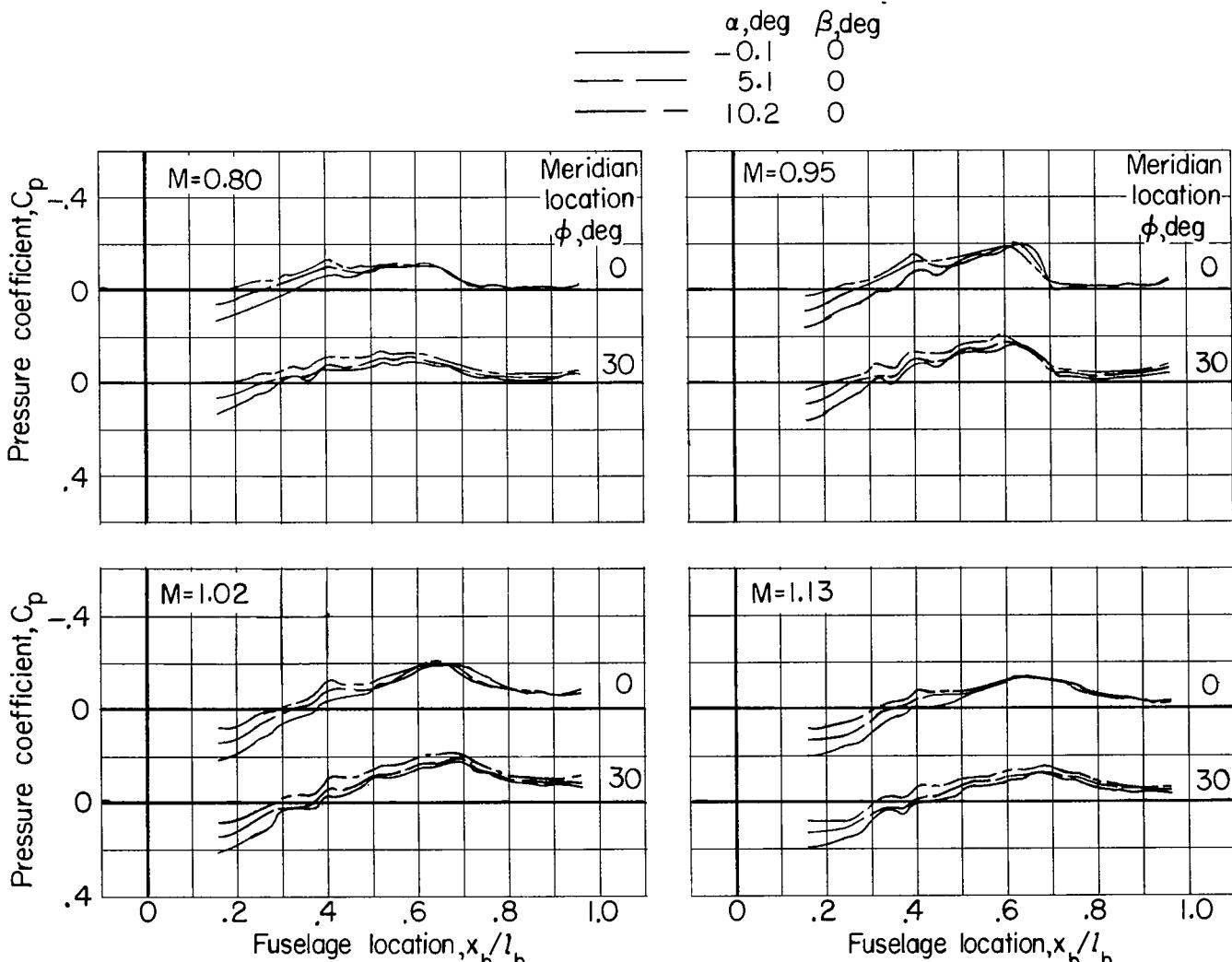
Figure 9.- Continued.

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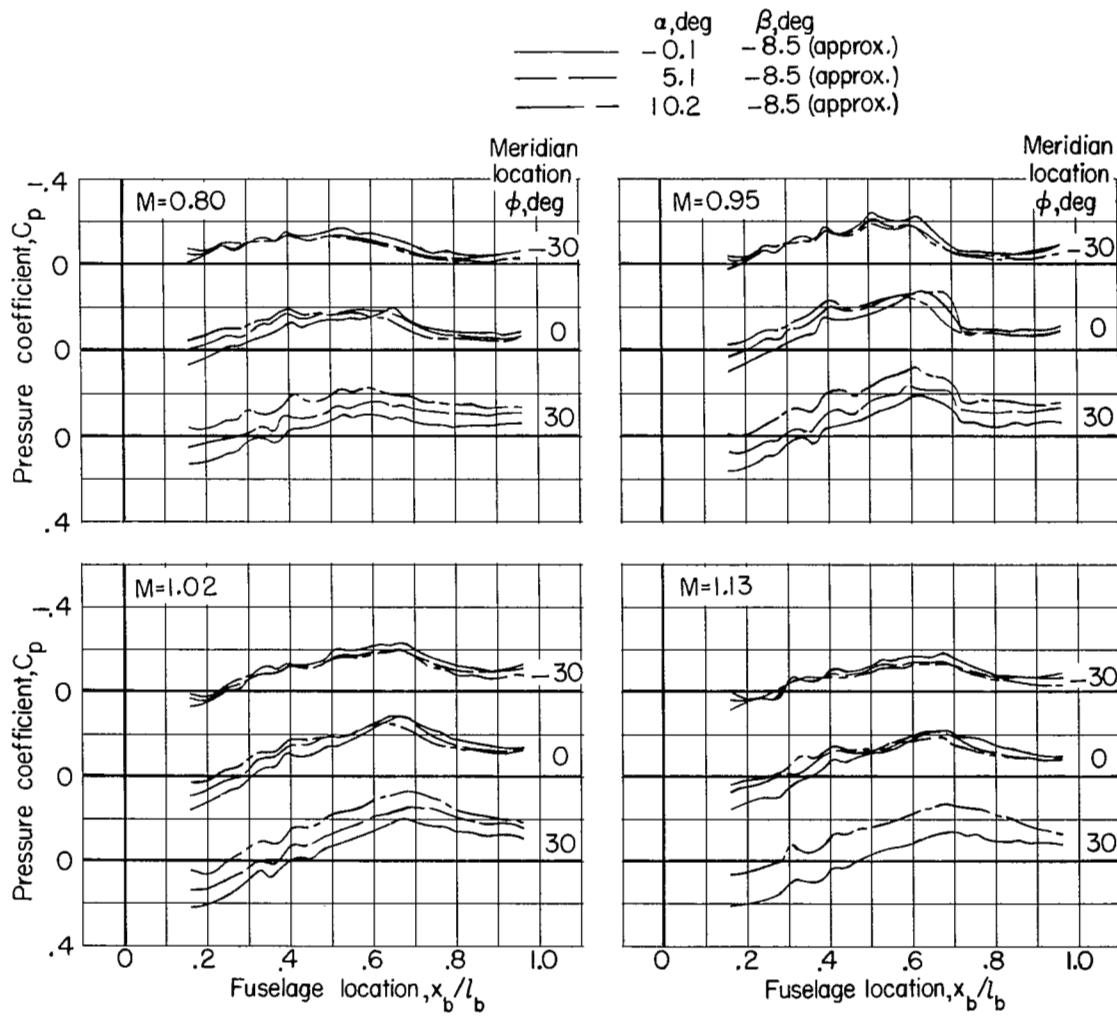
(d) Canopy 4. Concluded.

Figure 9.- Continued.



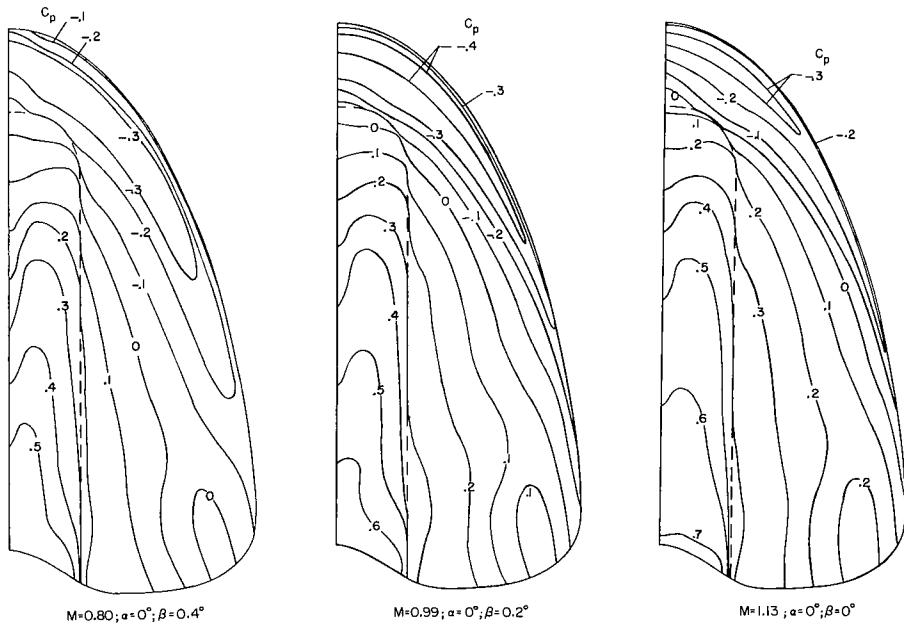
(e) Fuselage alone.

Figure 9.- Continued.

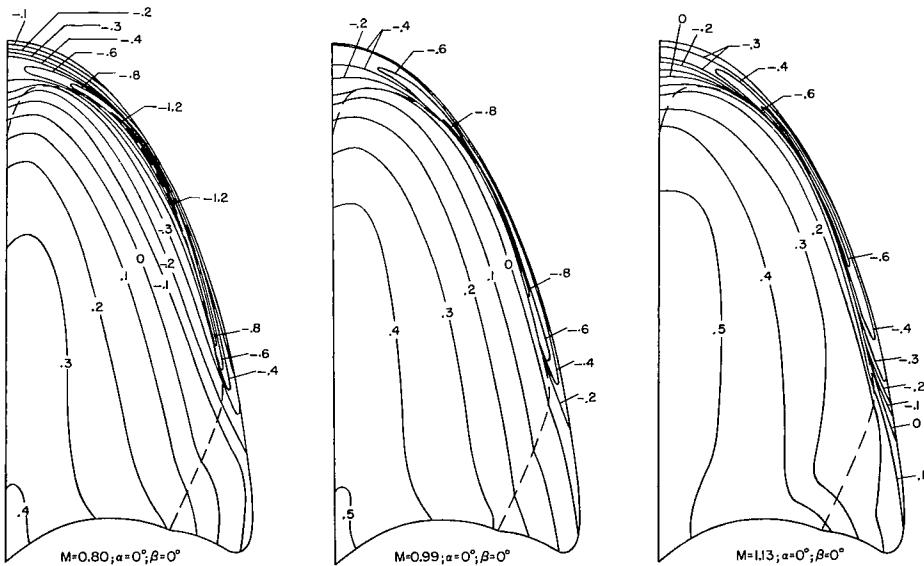


(e) Fuselage alone. Concluded.

Figure 9.- Concluded.

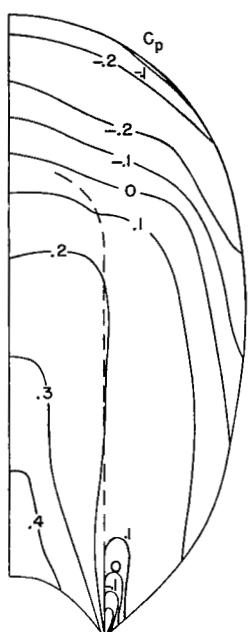


(a) Large flat-windshield canopy 1.

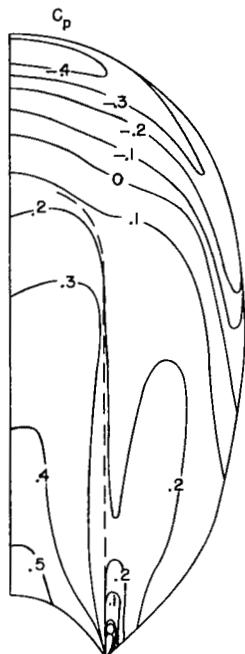


(b) Large vee-windshield canopy 2.

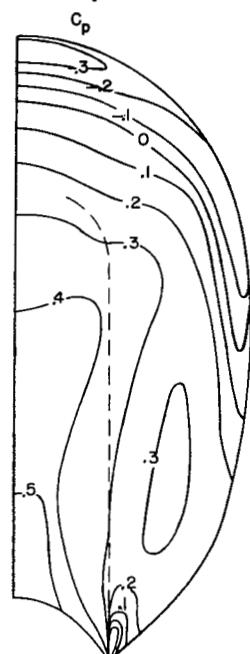
Figure 10.- Constant-pressure-coefficient contours on one-half the frontal projections of all canopies tested. $M = 0.80$, 0.99 , and 1.13 . (Dashed lines indicate windshield edges.)



$M=0.80; \alpha=0^\circ; \beta=0^\circ$

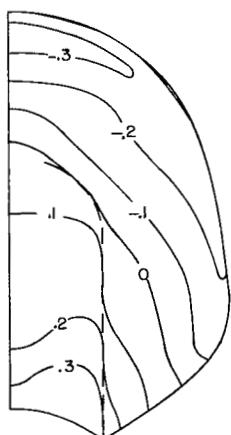


$M=0.99; \alpha=0^\circ; \beta=0^\circ$

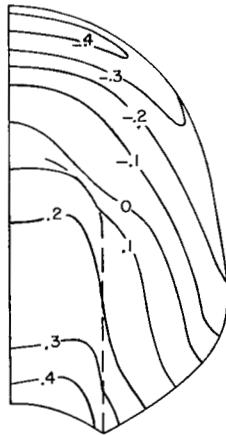


$M=1.13; \alpha=0^\circ; \beta=0^\circ$

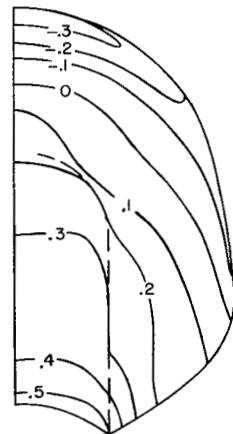
(c) Forward-located flat-windshield canopy 3.



$M=0.80; \alpha=0^\circ; \beta=0^\circ$



$M=0.99; \alpha=0^\circ; \beta=0^\circ$



$M=1.13; \alpha=0^\circ; \beta=0^\circ$

(d) Rearward-located flat-windshield canopy 4.

Figure 10.-- Concluded.

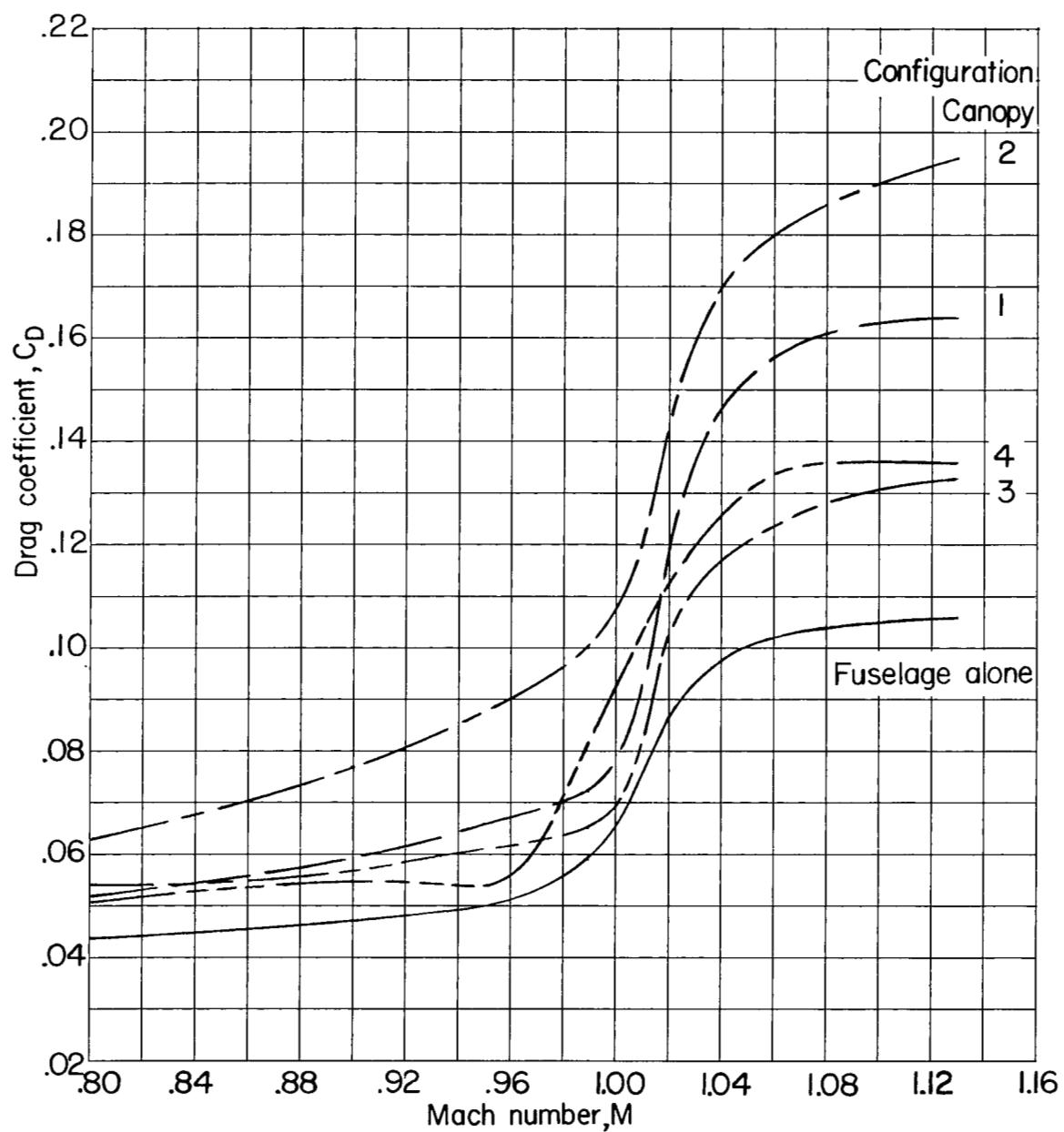


Figure 11.- Comparison of drag for the five models tested. $\alpha \approx 0^\circ$; $\beta = 0^\circ$.

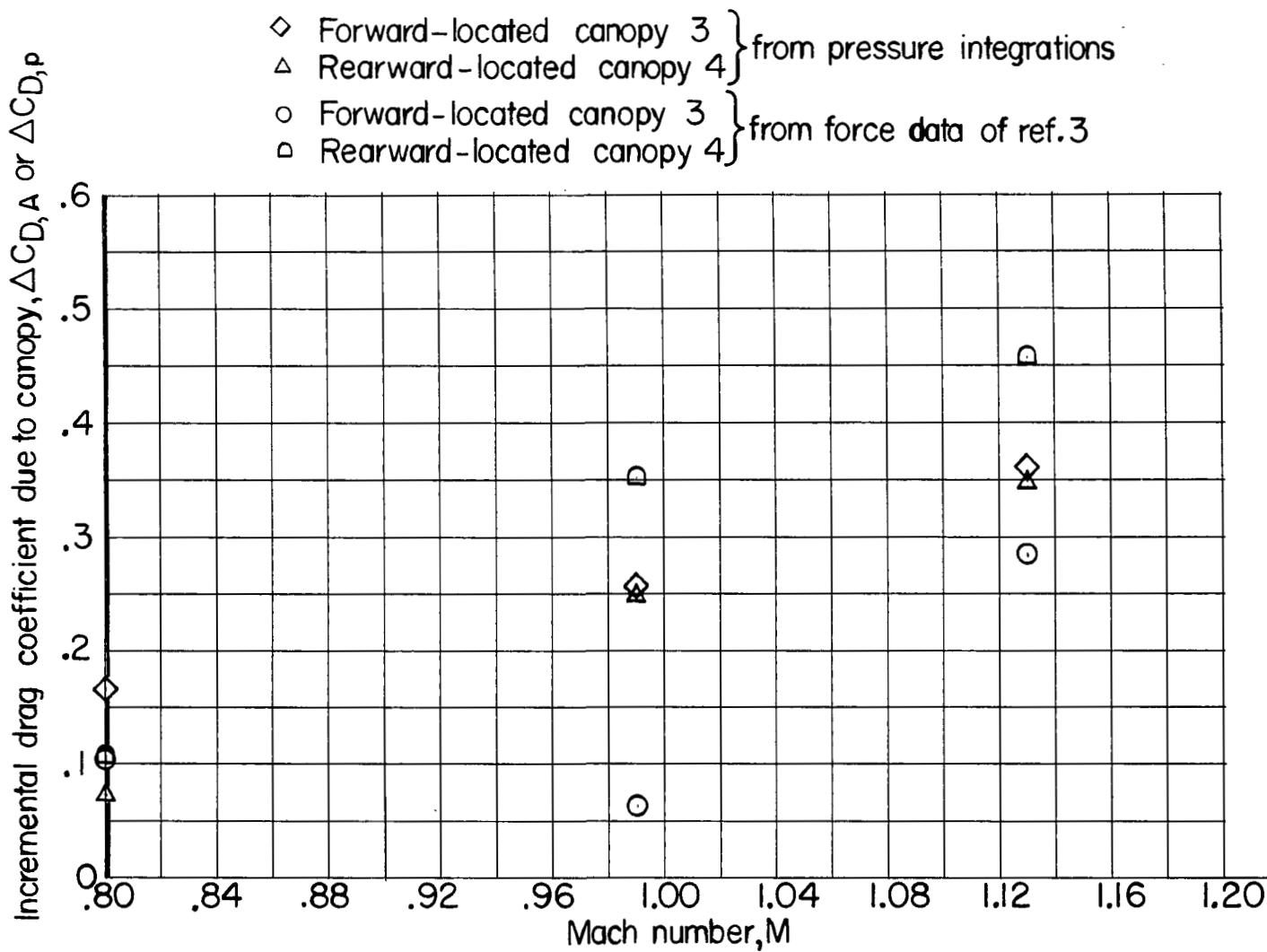


Figure 12.- Comparison of incremental drag coefficient due to canopy for forward-located and rearward-located canopies 3 and 4. $\alpha \approx 0^\circ$; $\beta \approx 0^\circ$.

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